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THE  
DENTAL SCHOOL

1902—03



CAMBRIDGE, MASS.

Published by Harvard University

NOVEMBER 10, 1902



ANNUAL ANNOUNCEMENT  
OF THE  
DENTAL SCHOOL  
OF  
HARVARD UNIVERSITY

1902—03



CAMBRIDGE  
Published by the University  
1902

1902.

JULY.

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## DENTAL SCHOOL CALENDAR.

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### 1902.

<i>Sept. 18; Thursday.</i>	Examinations begin for applicants for advanced standing, and for men previously conditioned.
<i>Sept. 22, Monday.</i>	Examinations for admission.
<i>Sept. 25, Thursday.</i>	<b>Academic Year begins.</b> Registration of Students.
<i>Nov. 27, Thursday.</i>	Thanksgiving Day: a holiday.

RECESS FROM DEC. 23, 1902, TO JAN. 2, 1903, INCLUSIVE.

### 1903.

<i>Jan. 1, Thursday.</i>	Last day for receiving dissertations for the Boylston Medical Prizes.
<i>Feb. 2, Monday.</i>	<b>Second half-year begins.</b>
<i>Feb. 22, Sunday.</i>	Washington's Birthday (February 23, Monday, a holiday).
<i>April 1, Wednesday.</i>	Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 19 TO APRIL 25, INCLUSIVE.

<i>April 30, Thursday.</i>	Last day for receiving applications from students in the Professional Schools to be qualified for the degree of A.M. in 1903.
<i>May 1, Friday.</i>	Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
<i>May 30, Saturday.</i>	Memorial Day: a holiday.
<i>May 30, Saturday.</i>	Last day for receiving applications of candidates for the degree of D.M.D. in 1903.
<i>June 1, Monday.</i>	Examinations begin.
<i>June 22, Monday.</i>	Alumni Day.
<i>June 24, Wednesday.</i>	<b>Commencement.</b>
<i>June 25, Thursday.</i>	Examinations for admission.

SUMMER VACATION OF FOURTEEN WEEKS, FROM COMMENCEMENT TO  
SEPTEMBER 30, INCLUSIVE.

- Sept. 24, Thursday.*      Examinations begin for applicants for advanced  
standing, and for men previously conditioned.
- Sept. 28, Monday.*      Examinations for admission.
- Oct. 1, Thursday.*      Academic Year begins.



## ADMINISTRATIVE OFFICERS.

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### THE UNIVERSITY.

*President:* CHARLES WILLIAM ELIOT, A.M., LL.D.

Office, 5 University Hall, Cambridge.

*Treasurer:* CHARLES FRANCIS ADAMS, 2d, A.B., LL.B.

*Comptroller:* ALLEN DANFORTH, A.M.

The office of the Corporation (and of the Treasurer and the Comptroller) is at 50 State Street, Boston. Office hours, 10 A.M. to 2 P.M.; Saturday, 10 A.M. to 12 M.

*Bursar:* CHARLES FRANK MASON, A.B.

Office, Dane Hall, Cambridge. Office hours, 9 A.M. to 1 P.M.

*Librarian:* WILLIAM COOLIDGE LANE, A.B.

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*Director of Hemenway Gymnasium:* DUDLEY ALLEN SARGENT, M.D., S.D.

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*Regent:* GEORGE ALONZO BARTLETT, A.M.

Office, 5 University Hall, Cambridge.

*Publication Agent:* JOHN BERTRAM WILLIAMS, A.B.

Office, 2 University Hall, Cambridge. Office hours, 9 A.M. to 5 P.M.; Saturday, 9 A.M. to 12.30 P.M.

*Secretary to the President:* JEROME DAVIS GREENE, A.B.

Office, 5 University Hall, Cambridge.

### THE FACULTY OF ARTS AND SCIENCES.

*The Offices of this Faculty and of the Departments under its charge at Nos. 4, 5, 9, 10, and 16, University Hall, Cambridge, are open on weekdays, except Saturdays, from 9 A.M. to 1 P.M., and on Saturdays from 9 A.M. to 12 M. Nos. 5, 9, 10, and 16 are also ordinarily open on weekdays, except Saturdays, from 2 to 4 P.M.*

*Dean of the Faculty of Arts and Sciences:* LE BARON RUSSELL BRIGGS, A.M., LL.D.

Office, 5 University Hall. Office hours, 9 A.M., Monday, Wednesday, and Friday.

*Dean of the Graduate School:* JOHN HENRY WRIGHT, A.M., LL.D.

Office, 10 University Hall. Office hours, Monday, Thursday, 3 P.M. to 3.30 P.M.

*Dean of Harvard College:* BYRON SATTERLEE HURLBUT, A.M.

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*Dean of the Lawrence Scientific School:* NATHANIEL SOUTHGATE SHALER, S.D.

Office, 16 University Hall. Office hours, daily, 9 A.M., except Saturday.

*Secretary of the Faculty of Arts and Sciences, and Chairman of the Committee on Special Students:* JOHN GODDARD HART, A.M.

Office, 5 University Hall. Office hours, daily, 9 A.M. to 10 A.M.

*Chairman of the Committee on Admission from other Colleges:* GEORGE WASHINGTON CRAM, A.B.

Office, 4 University Hall. Office hours, daily, 9 A.M. to 12 M.

*Recorder of the Faculty of Arts and Sciences:* GEORGE WASHINGTON CRAM, A.B.

Office, 4 University Hall. Office hours, daily, 9 A.M. to 1 P.M.

*Secretary of the Lawrence Scientific School, and Clerk of the Summer School:* JAMES LEE LOVE, A.M.

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## LABORATORIES AND MUSEUMS ASSOCIATED WITH THE FACULTY OF ARTS AND SCIENCES.

*Director of the Chemical Laboratory:* HENRY BARKER HILL, A.M.

The Chemical Laboratory is in Boylston Hall.

*Director of the Jefferson Physical Laboratory:* JOHN TROWBRIDGE, S.D.

The Jefferson Physical Laboratory is on Holmes Field.

*Keeper of the Museum of Comparative Zoölogy:* WILLIAM McMICHAEL WOODWORTH, PH.D.

*In charge of the Botanical Museum:* GEORGE LINCOLN GOODALE, M.D., LL.D.

The Botanical Laboratories are in the same building.

*Curator of the Mineralogical Museum:* JOHN ELIOT WOLFF, PH.D.

*Curator of the Peabody Museum of Archaeology and Ethnology:* FREDERIC WARD PUTNAM, A.M., S.D.

The above Museums are between Oxford Street and Divinity Avenue.

*Curator of the Semitic Museum:* DAVID GORDON LYON, PH.D., D.D.

The Semitic Museum is on Divinity Avenue.

*Director of the William Hayes Fogg Museum of Art, and Curator of the Gray Collection of Engravings:* CHARLES HERBERT MOORE, A.M.  
The Fogg Museum of Art is on Cambridge Street.

*Director of the Botanic Garden:* GEORGE LINCOLN GOODALE, M.D., LL.D.

*Curator of the Gray Herbarium:* BENJAMIN LINCOLN ROBINSON, PH.D.  
The Herbarium and Botanic Garden are at the corner of Garden and Linnaean Streets.

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*Dean of the Medical School* }  
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Office, Harvard Medical School, corner of Boylston and Exeter Streets, Boston. Office hours, Monday, Thursday, 12 M. to 1 P.M.

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The Dental School is on North Grove Street, Boston. The office of the Dean is at 283 Dartmouth Street, Boston. Office hours, 9 A.M. to 4 P.M.

*Curator of the Dental Museum:* WALDO ELIAS BOARDMAN, D.M.D.  
Office, 184 Boylston Street, Boston.

*Dean of the Bussey Institution* : FRANCIS HUMPHREYS STORER, S.B., A.M.

The Bussey Institution is in Jamaica Plain. The nearest railway and telegraph station is Forest Hills, on the Boston and Providence Division of the N.Y., N.H., and Hartford Railroad.

*Superintendent of the Bussey Farm* : EDMUND HERSEY.

The post-office address of the Farm Superintendent is Roslindale.

*Director of the Arnold Arboretum* : CHARLES SPRAGUE SARGENT, A.B., LL.D.

The Arnold Arboretum is in Jamaica Plain. The nearest railway and telegraph station is Forest Hills, on the Boston and Providence Division of the N.Y., N.H., and Hartford Railroad.

*Director of the Astronomical Observatory* : EDWARD CHARLES PICKERING, LL.D.

The Observatory is at the corner of Garden and Bond Streets, Cambridge.

## THE DENTAL SCHOOL.

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### FACULTY OF MEDICINE.\*

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WILLIAM B. HILLS, M.D., *Associate Professor of Chemistry.*

EUGENE H. SMITH, D.M.D., *Professor of Mechanical Dentistry and Orthodontia, and Dean of the Dental School.*

\* Arranged here and elsewhere in the Catalogue, with the exception of the President and Dean, on the basis of collegiate seniority.



WILLIAM F. WHITNEY, M.D., *Curator of the Anatomical Museum.*  
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 Medica and Therapeutics.*

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 logical Anatomy.*

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 Pathology.*

FRANZ PFAFF, M.D., *Assistant Professor of Pharmacology and  
 Therapeutics.*

WILLIAM T. PORTER, M.D., *Associate Professor of Physiology.*

FRANKLIN DEXTER, M.D., *Associate Professor of Anatomy.*

FRANK B. MALLORY, M.D., *Associate Professor of Pathology.*

JOHN WARREN, M.D., *Demonstrator of Anatomy.*

#### STANDING COMMITTEES FOR THE DENTAL SCHOOL.

*Admission Examination.* — Dr. Brackett (*Chairman*); Drs. Potter  
 (*Secretary*), Briggs, and Clapp.

*Courses of Study.* — Dr. Smith (*Chairman*), Drs. Hill, Brackett, and  
 Briggs.



# THE DENTAL SCHOOL, BOSTON.

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## GENERAL STATEMENT.

The Harvard Dental School is established in Boston and was instituted by vote of the President and Fellows of Harvard College, July 17, 1867. The first session of the School opened on the first Wednesday in November, 1867, and continued until the following March. The first examination of candidates for the degree of the School was held March 6, 1869.

The academic year begins on the Thursday following the last Wednesday in September, and ends on the last Wednesday in June. There is a recess beginning December 23, and ending January 2; and a spring recess of one week beginning on the Sunday next preceding the 19th of April, or on Sunday, the 19th of April, when that day falls on Sunday, and ending on the following Saturday, both days inclusive.

Instruction in this School is given throughout the academic year, by lectures, recitations, clinical teaching, and practical exercises, uniformly distributed. The course of instruction is progressive, and extends over three years, the teaching of one year not being repeated in the next.

The studies of the first year are pursued in connection with the classes in the Harvard Medical School, the student receiving instruction by the same professors at the same time and place with the medical students, and at the end of the year passing with them the examinations.

It is the object of the Faculty to present a complete course of instruction in the theory and practice of Dentistry; and for this purpose a well-appointed laboratory and infirmary are provided, and such arrangements made as ensure an ample supply of patients. Clinical instruction is given by the professors and other instructors; and, under the direction of demonstrators, patients are assigned to the students, ensuring to all opportunity of operating at the chair, and becoming by actual practice familiar with all the operations demanded of the dentist.

The Infirmary remains open, and three of the clinical instructors and a demonstrator are in attendance, daily, throughout the academic year, offering to students excellent facilities for acquiring practical knowledge and manipulative dexterity.

Students have access to the hospitals of the city; to the dissecting-room and museum of the Medical School. Students in regular standing in any

one department of the University are admitted free to the instruction and the examinations given in any other department, with the exception of exercises carried on in the special laboratories. But no student whose tuition fee for the year amounts to less than \$150 is admitted to exercises given in any department other than that in which he is enrolled, except by special permission of the Dean of the department in which the instruction is given, after being duly accredited thereto by the Dean of the department of which the student is a member.

That the time of study shall count as a full term, students of every class must present themselves within the first week of the term and register their names with the Dean.

#### ADMINISTRATIVE BOARD.

EUGENE H. SMITH, D.M.D., DEAN, and *Professor of Mechanical Dentistry and Orthodontia.*

THOMAS FILLEBROWN, M.D., D.M.D., *Professor of Operative Dentistry and Oral Surgery.*

CHARLES A. BRACKETT, D.M.D., *Professor of Dental Pathology.*

WILLIAM B. HILLS, M.D., *Associate Professor of Chemistry.*

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WILLIAM H. POTTER, D.M.D., *Assistant Professor of Operative Dentistry.*

DWIGHT M. CLAPP, D.M.D., *Clinical Lecturer on Operative Dentistry.*

WALDO E. BOARDMAN, D.M.D., *Curator of Dental Museum, and Librarian.*

#### INSTRUCTORS, LECTURERS, AND ASSISTANTS.

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CHARLES E. PERKINS, D.M.D., *Instructor in Operative Dentistry.*

JOSEPH T. PAUL, D.M.D., *Instructor in Operative Dentistry.*

EDWARD W. TAYLOR, M.D., *Instructor in Neurology.*

ALLEN S. BURNHAM, D.M.D., *Instructor in Mechanical Dentistry.*

GEORGE RUFUS GRAY, D.D.S., D.M.D., *Instructor in Operative Dentistry.*

HARRY S. PARSONS, M.D., D.M.D., *Instructor in Mechanical Dentistry.*

HENRY C. SMITH, Ph.G., *Assistant in Chemistry.*

HARRY L. GRANT, D.M.D., *Instructor in Mechanical Dentistry.*

THOMAS B. HAYDEN, D.M.D., *Instructor in Mechanical Dentistry.*

DWIGHT W. DICKINSON, D.M.D., *Assistant Demonstrator of Operative Dentistry.*

ASHER H. STC. CHASE, D.M.D., *Assistant Demonstrator of Mechanical Dentistry.*

ERNEST H. CHUTE, D.M.D., *Instructor in Mechanical Dentistry.*

HAROLD DEWITT CROSS, D.M.D., *Demonstrator of Mechanical Dentistry.*

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ROBERT J. McMEEKIN, D.M.D., *Demonstrator of Operative Dentistry.*

WILFRED H. STARRATT, D.M.D., *Instructor in Operative Dentistry.*

JOHN D. DICKINSON, D.M.D., *Clinical Instructor in Mechanical Dentistry.*

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WILLIAM D. SQUAREBRIGS, D.M.D., *Instructor in Extracting and Anaesthesia.*

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LESLIE H. NAYLOR, D.M.D., *Instructor in Operative Dentistry.*

CHARLES W. RODGERS, D.M.D., *Assistant in Dental Materia Medica.*

JOHN W. DICKINSON, D.M.D., *Instructor in Mechanical Dentistry.*

SAMUEL T. ELLIOTT, D.M.D., *Instructor in Operative Dentistry.*

## STUDENTS.

## POST-GRADUATES.

NAME.	HOME RESIDENCE.	PRESENT ADDRESS.*
Oya, Yosoku, D.M.D. ( <i>San Francisco Dent. Coll.</i> ) 1902,	<i>Shimotsuke, Japan,</i>	77 Revere St.
Patton, Charles Henry,	<i>St. John, N. B.</i>	680 Mass. Ave.

## THIRD YEAR.

Brown, Fred Louis Standish,	<i>Westboro,</i>	352 Columbus Ave.
Christen, Paul,	<i>Olten, Switzerland,</i>	26 Isabella St.
Clarke, Harold William,	<i>Southbridge,</i>	30 Hancock St.
Cohen, Bernard, A.B. 1900,	<i>Pawtucket, R. I.</i>	86 Charles St.
Cohen, Henry Eli,	<i>Roxbury,</i>	6 Ellis St., Roxbury.
Cunningham, Ralph Prindall,	<i>Gloucester,</i>	30 Hancock St.
Damon, Stanley William,	<i>Boston,</i>	201 Chestnut Ave.
Davis, John Boynton, A.B. 1901,	<i>Newtonville,</i>	442 Walnut St., Newtonville.
Dill, Martin Bassett, A.B. 1901,	<i>Newton Centre,</i>	460 Com'wealth Ave., Newton Centre.
Fitzgerald, James Joseph,	<i>Roxbury,</i>	3 Dayton Ave.
Gibbs, Frederick Azro, B.S. ( <i>Dartmouth Coll.</i> ) 1898,	<i>Dover, N. H.</i>	8 Berwick Park.
Gilbert, Ernest Hubbell, A.B. ( <i>Brown Univ.</i> ) 1900,	<i>Newton Upper Falls,</i>	6 Oseepee R'd, Newt. Upper
Gilman, Henry, A.B. ( <i>Bowdoin Coll.</i> ) 1897,	<i>Scarboro, Me.</i>	408 Columbus Ave.
Hanlon, Harold Clinton,	<i>No. Easton,</i>	10 William St., No. Easton.
Hazen, William Dimick,	<i>W. Hartford, Vt.</i>	41 Hancock St.
Langley, Herbert Frank, A.B. 1900,	<i>Randolph,</i>	Randolph.
McDonough, Frank Donovan,	<i>Charlestown,</i>	284 Bunker Hill St., Ch's'n.
McMurray, Albert Thompson,	<i>Fredericton, N. B.</i>	Harv. Dent. School.
Meagher, William Joseph	<i>Mattapan,</i>	Mattapan.
O'Connor, Edward,	<i>E. Cambridge,</i>	96 Gore St., E. Camb.
Parker, Austin Hall,	<i>Brookline,</i>	46 Vernon St., B'kline.
Peterson, Frederick Capen,	<i>E. Boston,</i>	44 Princeton St., E. Boston.
Pope, Clinton Mayberry,	<i>Roxbury,</i>	119 Devonshire St.
Pressey, Mark Bailey,	<i>Hammonton, N. J.</i>	Harv. Dent. School.

\* Addresses are in Boston unless stated to be elsewhere.



Robinson, Rudolphus Henry,	<i>Charlestown,</i>	84 Cambridge St., Ch's'n.
Rogers, Joseph Moulton,	<i>Roxbury,</i>	21 Linwood St., Roxbury.
Rogers, William Burton,	<i>Boston,</i>	Hoffman House.
Ross, Hubert Washington,	<i>New Haven, Conn.</i>	1556 Cambridge St., Camb.
Russell, John Henry,	<i>Providence, R.I.</i>	50 Chapin Ave., Providence, R.I.
Simpson, Frank Packard,	<i>Brunswick, Me.</i>	123 W. Newton St.
Stone, Harry Austin,	<i>Somerville,</i>	7 Wellington Ave., Somer.
Sumner, Richard Addison,	<i>Providence, R.I.</i>	Hoffman House.
Toohey, Thomas,	<i>Cambridge,</i>	109 Antrim St., Cambridge.
Travis, Frank Edgar,	<i>Holliston,</i>	Holliston.
Twichell, Charles Lincoln,	<i>Athol,</i>	13 Sunnyside St., Jam. Pl.
Weston, William Harry,	<i>Providence, R.I.</i>	133 Bellevue Ave., Prov., R.I.
Williams, Aubrey Albuoy,	<i>Gloucester,</i>	469 Broadway, Cambridge.
Williams, Clinton Nickerson,	<i>Providence, R. I.</i>	420 Mass. Ave.
Wilson, Thomas William Lee,		
M.A.C.D. ( <i>Aus. Coll. Dentistry</i> ) 1901,	<i>Melbourne, Australia,</i>	61 West Cedar St.
Wright, George Henry,	<i>Cambridge,</i>	88 Perkins Hall, Cambridge.

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SECOND YEAR.

Andrzejewski, Stefan,	<i>Ostrowo, Germany,</i>	26 Isabella St.
Calusdian, Charles Henry,	<i>Jamaica Plain,</i>	326 Centre St., Jam. Pl.
Carter, Charles Douglas,	<i>Southington, Conn.</i>	6 Yarmouth St.
Carter, Raymond Boynton,	<i>Pepperell,</i>	Pepperell.
Caswell, Ernest Herbert,	<i>Fitchburg,</i>	Bournewood, Brookline.
Clark, Harry Sylvester, B.S.		
( <i>Dartmouth Coll.</i> ) 1901,	<i>Randolph, Vt.</i>	379 Columbus Ave.
Cummings, Earle Clinton,	<i>Portland, Me.</i>	152 Mass. Ave.
Eames, Frank Leroy,	<i>West Upton,</i>	Randolph Hall, Cambridge.
Estes, Nathan Anthony,	<i>Leicester,</i>	59 Pinckney St.
Hamilton, William Sharpe,	<i>Ware,</i>	183 Warren Ave.
Haynes, James Chester,	<i>Roxbury,</i>	10 Herman St., Roxbury.
Isles, George White,	<i>Roxbury,</i>	27 Guild Row, Roxbury.
Knowlton, Clifton Eugene,	<i>Worcester,</i>	1134 Mass. Ave., Camb.
Lawton, Leon Julius,	<i>Providence, R.I.</i>	59 Pinckney St.
Miner, Leroy Matthew Simpson,	<i>Chicago, Ill.</i>	12 Upham Ave., Dor.
Morgan, Blaine Wilcox,	<i>Malden,</i>	591 Salem St., Malden.
Newman, Frank Arthur,	<i>Everett,</i>	36 School St., Everett.
Otis, Melville Neal,	<i>Providence, R.I.</i>	461 Mass. Ave.
Perkins, Alton Flagg,	<i>Brockton,</i>	21 Highland St., Brockton.
Quintero, Manuel Justo, A.B.		
( <i>Univ. of Lyons, France</i> ) 1900,	<i>Lyons, France,</i>	56 W. Cedar St.

Ritter, William, Jr.	<i>Chicopee,</i>	109 Summer St., Somer.
Russell, Ubert Clifton,	<i>Fitchburg,</i>	Beacon Chambers.
Stone, Lester Ashton,	<i>Fitchburg,</i>	Beacon Chambers.
Tishler, Benjamin,	<i>Boston,</i>	238 W. Canton St.
Witham, Byron Clarke,	<i>Cumberland Mills, Me.</i>	119 Summer St., Somer.
Wyman, Eugene Barry,	<i>Sebec, Me.</i>	17 Chauncy St., Cambridge.

## FIRST YEAR.

Aldrich, Harry Wadsworth,	<i>Worcester,</i>	15 Warren Ave.
Catheron, Robert Scott,	<i>Grafton, N.S.</i>	Needham, Mass.
Collins, Robert Glendinning,	<i>Bridgeport, Conn.</i>	15 Allston St.
Eminons, Harold Leonard,	<i>Saco, Me.</i>	24 Waverley St., Everett.
Furbish, John Arthur, A.B. ( <i>Bowdoin Coll.</i> ) 1902,	<i>Brunswick, Me.</i>	183 Warren Ave.
Gilpatric, William Henry,	<i>Plymouth, N. H.</i>	1697 Cambridge St., Camb.
Grastorf, John Charles,	<i>Wellsville, N. Y.</i>	405 Broadway, Chelsea.
Greenwell, George Steven Smith, M.H.A.C. ( <i>Hawksbury Agric.</i> <i>Coll., Richmond, N.S. Wales</i> ) 1885,	<i>Sydney, Australia,</i>	357 Columbus Ave.
Greenwell, Howard Robinson,	<i>Sydney, Australia,</i>	357 Columbus Ave.
Haines, Robert Montgomery,	<i>Quincy,</i>	235 Grove St., Melrose.
House, Albert Ivanhoe,	<i>So. Framingham,</i>	4 Marlboro St.
Kahn, Herman Eli,	<i>Leadville, Colo.</i>	152 Mass. Ave.
Kazanjian, Varaztad Honhaness,	<i>Sinas, Turkey,</i>	15 High'd P'k Ave., Rox.
Leavitt, Philip Amos,	<i>Saco, Me.</i>	58 Pinckney St.
Mathers, Howard,	<i>Newport, R. I.</i>	487 Mass. Ave.
Mendel, Raymond Irving,	<i>Louisville, Ky.</i>	Conant 34, Cambridge.
Merrill, Albert Alexander,	<i>Halifax, N.S.</i>	Beacon Chambers.
McKenzie, Charles,	<i>E. Boston,</i>	37 W. Eagle St., E. Boston.
McManus, Terence Benson,	<i>Boston,</i>	670 Washington St.
Mock, Charles Whiting,	<i>Boston,</i>	80 Paul Gore St.
Morrison, George Smythe,	<i>Brookline,</i>	15 Thayer Pl., Brookline.
Multer, Virgilo,	<i>Marlboro,</i>	62 Newton St., Marlboro.
Norwood, Harold Bradshaw,	<i>Beverly,</i>	108 Mt. Vernon St.
O'Connell, John William,	<i>Wakefield,</i>	12 Emerald St., Wakefield.
O'Connor, Joseph Francis,	<i>E. Cambridge,</i>	96 Gore St., E. Camb.
Packard, Abner Beale,	<i>Quincy,</i>	60 Elm St., Quincy.
Parker, Newell Oscar,	<i>Beachmont,</i>	Endicott Ave., Beachmont.
Perry, William Horacé,	<i>W. Somerville,</i>	103 College Ave., W. Somer.
Phelps, William Davies,	<i>Cambridge,</i>	988 Mass. Ave., Camb.



Phillips, Francis Henry,	<i>Springfield,</i>	Harv. Dent. School.
Provan, Walter Fairfield,	<i>Dorchester,</i>	24 Monadnock St., Dor.
Reed, Charles Henry,	<i>No. Attleboro,</i>	374 Columbus Ave.
Ryder, William Vernon,	<i>Everett,</i>	48 Shute St., Everett.
Stanhope, William Edward,	<i>Newport, R.I.</i>	487 Mass. Ave.
Stevens, Charles Edward,	<i>Brookline,</i>	16 Columbia St., Brookline.
Stuhl, Frank,	<i>Haspelscheid, Lorraine, Ger.</i>	827 Broadway, So. Boston.
Smith, Otis Shaw,	<i>Malden,</i>	27 Garland Ave., Malden.
Thomas, Charles Melville,	<i>Malden,</i>	Holmes St., Malden.
Turner, Edgar Allan,	<i>Boston,</i>	201 Clarendon St.
Triggs, Clinton Frank,	<i>Cambridge,</i>	1039 Mass. Ave., Camb.
Waggoner, John Newell,	<i>Jerseyville, Ill.</i>	99 Charles St.
Weinz, Willis Henry,	<i>Roxbury,</i>	24 Akron St., Rox.
Wing, Abner Toothaker,	<i>Everett,</i>	464A Broadway, Everett.
White, Harry Samuel,	<i>Boston,</i>	26 Binney St.

## SUMMARY.

POST-GRADUATES . . . . .	2
THIRD YEAR STUDENTS . . . . .	40
SECOND YEAR STUDENTS . . . . .	26
FIRST YEAR STUDENTS . . . . .	44
TOTAL . . . . .	112

## REQUIREMENTS FOR ADMISSION.

### (Present Method.)

All candidates for admission, holding a degree in letters, science, or medicine, from a recognized college or scientific school, or who have passed an examination for admission to Harvard College or any other reputable college of letters or the Lawrence Scientific School, are admitted without examination. All other candidates must pass an examination in the following subjects : —

- |                            |                            |
|----------------------------|----------------------------|
| 1. English.                | 5. Qualitative Analysis.   |
| 2. Physics.                | 6. Either German, Algebra, |
| 3. Either Latin or French. | Plane Geometry, Botany.    |
| 4. General Chemistry.      |                            |

1. **ENGLISH.** The candidate will be required to write a paragraph or two on each of several topics chosen by him from a considerable number set before him on the examination paper. In 1903 the topics will be drawn from the following works : Shakspeare's Julius Caesar, George Eliot's Silas Marner, Lowell's Vision of Sir Launfal, Scott's Ivanhoe, Tennyson's Princess.

The candidate is expected to read intelligently *all* the books prescribed. He should read them as he reads other books ; he is expected, not to know them minutely, but to have freshly in mind their most important parts.

In every case the examiner will regard knowledge of the book as less important than ability to write English.

As additional evidence of preparation, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work.

2. **PHYSICS.** (1) A competent knowledge of Physics such as may be obtained from Gage's Elements of Physics, or any other High School Physics, or (2) a course of experiments, not less than forty in number, performed at school by the student. These must be selected from a list issued by the University under the title, "A Descriptive List of Elementary Exercises in Physics,"\* or must be approved by the Department of Physics of Harvard College as the equivalent of those contained in this list.

The note-book must bear the endorsement of the teacher, certifying that the notes are a true record of the pupil's work, and must be handed to the Dean at least one week previous to the date of the entrance examination.

\* This list can be procured (price forty cents) of the branch of the Harvard Coöperative Society, 707 Boylston St., or will be sent postpaid on receipt of price by the Publication Agent of Harvard University, 2 University Hall, Cambridge, Mass.

3. *LATIN or FRENCH.* The examination in Latin will consist of translation at sight of average passages from the first three books of Caesar's Commentaries on the Gallic War, and the first two books of Virgil's Aeneid; and in French, of translation at sight of simple prose.

4 and 5. *CHEMISTRY.\** Theoretical and Descriptive (Inorganic) Chemistry and Qualitative Analysis.

- a. Each candidate is required to pass a written examination in Theoretical and Descriptive (Inorganic) Chemistry.
- b. Each student will be required to hand in, at the hour of the written examination in Chemistry, the original note-book in which he recorded the work performed by him at school in Qualitative Analysis. This note-book must give evidence that the student has had practice in the analysis of solutions and solids containing several salts, and must bear the endorsement of his teacher, certifying that the notes are a true record of his work.

All candidates, whether presenting a degree or not, are required to satisfy the Faculty that they have had a course in Theoretical and Descriptive (Inorganic) Chemistry and Qualitative Analysis sufficient to fit them to pursue the courses in Chemistry given at the school, or, failing in this, to pass an examination in General Chemistry and Qualitative Analysis. Students who are unable to fulfil either of these requirements may enter conditioned in Chemistry. An opportunity will be furnished during the first year for making up this condition.

A special fee of twenty dollars will be charged for this course.

#### 6. *GERMAN, ALGEBRA, PLANE GEOMETRY, AND BOTANY.*

The examination in German will consist of translation at sight of simple prose; in Algebra, will extend to Quadratic Equations; in Botany, will cover Gray's *How Plants Grow*; in Geometry, will include the elements of Plane Geometry.

Students who began their professional studies in other recognized Dental or Medical Schools may be admitted to advanced standing; but all persons who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in dental or medical studies, and must pass examinations in the branches already pursued by the class to which they seek admittance.

*Graduates* of recognized dental schools will be admitted without examination to the courses in Operative and Mechanical Dentistry, but attendance on such courses does not entitle a student to examination for the degree. A certificate of attendance will be furnished when desired.

The Summer Course in General Chemistry and Qualitative Analysis given at the Medical School, is adapted to students about to enter the Dental School.

The examinations for admission are conducted in writing. In judging the work of the candidate, the spelling, grammar, and construction are considered.

*No person will be examined for admission at any other than the regularly appointed time.*

The entrance and first-year examinations will be allowed to foreign students who have passed *equivalent* examinations abroad, upon presentation of proper certificates from the examining boards, vouching for the facts.

A certificate of having passed the examination for admission will admit a student to this School only as long as the entrance requirements remain the same.

All persons intending to take the entrance examination must send their names to the Dean for registry previous to the day on which the examination is to take place.

The examinations for admission are held at the Dental School, North Grove Street, Boston, on the Thursday following the last Wednesday in June, and on the Monday preceding the last Wednesday in September, as follows:—

9-10 A.M.	Latin or French.	2.45-3.45 P.M.	Electives (Ger-
10.15-11.15 A.M.	Physics.		man, Algebra, Plane Geometry,
11.30 A.M.-12.30 P.M.	Chemistry.		Botany).
1.30-2.30 P.M.	English.		

In 1903 *the examinations for admission* will ALSO probably be held at the following places, beginning at 9 A.M. on Thursday, June 25, at the same hours. Candidates wishing to be examined in any place outside of Boston must give notice not later than June 10:—

*Cambridge*, in Sever Hall.

*Andover*, in the rooms of Phillips Academy.

*Milton*, in the rooms of Milton Academy.

*Groton*, in the rooms of Groton School.

*Southborough*, in the rooms of St. Mark's School.

*Worcester*, in the rooms of the English High School.

*Springfield*, in the rooms of the Springfield High School.

*Fall River*, in the Durfee High School Building.

*South Byfield*, in the rooms of Dummer Academy.

*Lynn*, in the rooms of the Classical High School.

*Exeter, N.H.*, in the rooms of Phillips Exeter Academy.

*Concord, N.H.*, in the rooms of St. Paul's School.

*Portland, Me.*, in the rooms of the Portland High School.

*Pomfret Centre, Conn.*, in the rooms of the Pomfret School.



- Washington, Conn.*, in the rooms of the Gunnery School.
- New York, N. Y.*, in the lecture-room of the Young Men's Christian Association, Twenty-third Street, corner of Fourth Avenue.
- Albany, N. Y.*, in the rooms of the Young Men's Christian Association.
- Buffalo, N. Y.*, in the High School building, corner of Court and Franklin Streets.
- Morristown, N. J.*, in the rooms of the Morristown School.
- Philadelphia, Pa.*, in the rooms of the Young Men's Christian Association building, corner of Fifteenth and Chestnut Streets.
- Pottstown, Pa.*, in the rooms of the Hill School.
- Washington, D. C.*, in the rooms of the Central High School.
- Louisville, Ky.*, in the rooms of the Young Men's Christian Association, corner of Fourth Avenue and Broadway.
- Lima, Ind.*, in the rooms of the Howe School.
- Milwaukee, Wis.*, in the rooms of the East Division High School.
- Cleveland, O.*, in the Central High School building.
- Cincinnati, O.*, in the rooms of the Young Men's Christian Association.
- Youngstown, O.*, in the rooms of the Rayen School.
- Chicago, Ill.*, in the rooms of the Young Men's Christian Association, 153 La Salle Street.
- St. Paul, Minn.*, in the rooms of St. Paul Academy, 155 Western Avenue.
- St. Louis, Mo.*, in the rooms of the Board of Education, 9th and Locust Streets.
- Denver, Col.*, in the rooms of the Denver High School (District No. 1), corner of Nineteenth and Stout Streets.
- San Francisco, Cal.*, in the rooms of the Mechanics' Institute, 31 Post Street.
- Belmont, Cal.*, in the rooms of the Belmont School.
- Portland, Oregon*, in the lecture-room of the Portland Library.
- Bonn, Germany*, at the Hotel Kley.
- Honolulu, Hawaii.*

## REQUIREMENTS FOR ADMISSION.

### (New Method.)

In June, 1904, and thereafter, the requirements for admission will be as follows :—

Candidates for admission holding a degree in letters, science, or medicine from a recognized college or scientific school, or who have passed the examination for admission to Harvard College or any other reputable college of letters, or the Lawrence Scientific School, are admitted without examination. All other candidates must offer from the following list

studies amounting to 16 points. Sections 1, 2, 3, 4 are required. Electives may be chosen from Section 5.

The figure attached to each study indicates the relative weight (termed points) which will be given to it in determining the question of the candidate's fitness for admission.

1. English (4)
2. Physics (2)
3. Latin (4) *or* French (2) and English and American History (2)  
*or* French (2) and Greek and Roman History (2)  
*or* German (2) and English and American History (2)  
*or* German (2) and Greek and Roman History (2)
4. Theoretical and Descriptive (Inorganic) Chemistry and Qualitative Analysis (4)

In addition he will be obliged to offer either —

5. Algebra (2)  
 Plane Geometry (2)

Or any two of the following: —

- Solid Geometry (1)
- Botany (1)
- Zoölogy (1)
- Anatomy, Physiology, and Hygiene (1)
- Wood-working (1)
- Blacksmithing (1)
- Chipping, Filing, and Fitting (1)
- Machine-tool Work (1)

The examinations in English, Physics, Latin, French, Greek and Roman, English and American History, German, Algebra and Plane Geometry will be the same as those given in these subjects (elementary grade) for admission to Harvard College.

The examinations in Botany, Zoölogy, Anatomy, Physiology and Hygiene, Woodworking, Blacksmithing, Chipping, Filing and Fitting, Machine-tool Work, will be the same as those given in these subjects for admission to the Lawrence Scientific School.

Candidates for admission to the Dental School will take the examinations, at the times and places designated for the examinations for admission to Harvard College and the Lawrence Scientific School.



## STUDIES IN WHICH EXAMINATIONS WILL BE HELD.

### English.

The examination will consist of two parts, which, however, cannot be taken separately: —

I. The candidate will be required to write a paragraph or two on each of several topics chosen by him from a considerable number — perhaps ten or fifteen — set before him on the examination paper.

The books prescribed for this examination will be announced later.

The candidate is expected to read intelligently *all* the books prescribed. He should read them as he reads other books; he is expected, not to know them minutely, but to have freshly in mind their most important parts. In every case the examiner will regard knowledge of the book as less important than ability to write English.

As additional evidence of preparation, the candidate may present an exercise-book, properly certified by his instructor, containing compositions or other written work.

II. A certain number of books will be prescribed for careful study. This part of the examination will be upon subject-matter, literary form, and logical structure, and will also test the candidate's ability to express his knowledge with clearness and accuracy.

No candidate will be accepted in English whose work is seriously defective in point of spelling, punctuation, grammar, or division into paragraphs.

In connection with the reading and study of the prescribed books, parallel or subsidiary reading should be encouraged, and a considerable amount of English poetry should be committed to memory. The essentials of English grammar should not be neglected in preparatory study.

The English written by a candidate in any of his examination-books may be regarded as part of his examination in English, in case the evidence afforded by the examination-book in English is insufficient.

### Physics.

A course of study dealing with the leading elementary facts and principles of Physics, with quantitative laboratory work by the pupil.

The instruction given in this course should include qualitative lecture-room experiments, and should direct especial attention to the illustrations and applications of physical laws to be found in every-day life. The candidate is required to pass a written examination, the main object of which will be to determine how much he has profited by such instruction. This examination may include numerical problems. It will contain more ques-

tions than any one candidate is expected to answer, in order to make allowance for a considerable diversity of instruction in different schools.

The pupil's laboratory work should give practice in the observation and explanation of physical phenomena, some familiarity with methods of measurement, and some training of the hand and the eye in the direction of precision and skill. It should also be regarded as a means of fixing in the mind of the pupil a considerable variety of facts and principles. The candidate is required to pass a laboratory examination, the main object of which will be to determine how much he has profited by such a laboratory course.

The candidate must name as the basis for his laboratory examination at least thirty-five exercises selected from a list of about sixty, described in a publication issued by the University under the title, "Descriptive List of Elementary Exercises in Physics." In this list the divisions are mechanics (including hydrostatics), light, heat, sound, and electricity (with magnetism). At least ten of the exercises selected must be in mechanics. Any one of the four other divisions may be omitted altogether, but each of the three remaining divisions must be represented by at least three exercises.

The candidate is required to present a note-book in which he has recorded the steps and the results of his laboratory exercises, and this note-book must bear the endorsement of his teacher, certifying that the notes are a true record of the pupil's work. It should contain an index of the exercises which it describes. These exercises need not be the same as those upon which the candidate presents himself for the laboratory examination, but should be equivalent to them in amount and grade of quantitative work.

The note-book is required as proof that the candidate has formed the habit of keeping a full and intelligible record of laboratory work through an extended course of experiments, and that his work has been of such a character as to raise a presumption in favor of his preparation for the examination. But much greater weight will be given to the laboratory examination than to the note-book in determining the candidate's attainments in physics. Experience has shown that pupils can make the original record of their observations entirely presentable, so that copying will be unnecessary, and they should in general be required to do so.

This course, if taken the last year of the candidate's preparation, is expected to occupy in laboratory work, recitations, and lectures, five of the ordinary school periods, about fifty minutes in length, per week for the whole year. With few exceptions, exercises like those in the Descriptive List already mentioned can be performed in a single school period, but for satisfactory results it will often be necessary to repeat an exercise. Two periods per week for the year should be sufficient for the labora-

tory work proper. If the course is begun much earlier than the last year of the candidate's preparation, as it well may be, it will require more time.

A candidate who offers Physics will hand in his laboratory note-book at *the hour of the laboratory examination*. Laboratory note-books will be deposited, after examination, in the College office, where they will be kept for a reasonable time, subject to the order of the owners.

A candidate examined in June at any place where a laboratory examination is not provided will be required to take such an examination in Cambridge in the autumn, but if he passes the written examination in June and presents a satisfactory note-book, the subject will be temporarily counted in his favor in determining the question of his admission to the School.

### Latin.

The examination will be adapted to the proficiency of those who have studied Latin in a systematic course of five lessons a week, extending through at least *three* school years. The two parts of the examination cannot be taken separately:—

(a) The translation at sight of simple Latin prose and verse. (The passages set for translation must be rendered into simple and idiomatic English.)

(b) A thorough examination on a prescribed portion of Cicero's speeches (about thirty pages), directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language; the test to consist, in part, of writing simple Latin prose, involving the use of such words, constructions, and idioms only as occur in the speeches prescribed.

The portion of Cicero prescribed for this examination is the second, third, and fourth speeches against Catiline. Two years' notice will be given of any change in the selection.

### German.

(a) The translation at sight of simple German prose. (The passages set for translation must be rendered into simple and idiomatic English.)

(b) The translation into German of simple English sentences, or of easy connected prose, to test the candidate's familiarity with elementary grammar.

The passages set for translation into English will be suited to the proficiency of candidates who have read not less than two hundred pages of easy German (including reading at sight in class).

Grammar should be studied concurrently with the reading as an indispensable means of ensuring thoroughness and accuracy in the understand-

ing of the language. The requirement in elementary grammar includes the conjugation of the weak and the more usual strong verbs; the declension of articles, adjectives, pronouns, and such nouns as are readily classified; the commoner prepositions; the simpler uses of the modal auxiliaries; the elements of syntax, especially the rules governing the order of words.

Pronunciation should be carefully taught, and the pupils should have frequent opportunities to hear German spoken or read aloud. The writing of German from dictation is recommended as a useful exercise.

### French.

(a) The translation at sight of ordinary Nineteenth Century prose. (The passages set for translation must be rendered into simple and idiomatic English.)

(b) The translation into French of simple English sentences or of easy connected prose, to test the candidate's familiarity with elementary grammar. Proficiency in grammar may also be tested by direct questions, based on the passage set for translation under (a).

The passage set for translation into English will be suited to the proficiency of candidates who have read not less than four hundred pages (including reading at sight in class) from the works of at least three different authors. It is desirable that a portion of the reading should be from works other than works of fiction.

Grammar should be studied concurrently with the reading as an indispensable means of ensuring thoroughness and accuracy in the understanding of the language. The requirement in elementary grammar includes the conjugations of regular verbs, of the more frequent irregular verbs, such as *aller*, *envoyer*, *tenir*, *pouvoir*, *voir*, *vouloir*, *dire*, *savoir*, *faire*, and those belonging to the classes represented by *ouvrir*, *dormir*, *connaître*, *conduire*, and *craindre*; the forms and positions of personal pronouns and of possessive, demonstrative, and interrogative adjectives; the inflection of nouns and adjectives for gender and number, except rare cases; the uses of articles, and the partitive constructions.

Pronunciation should be carefully taught, and pupils should have frequent opportunities to hear French spoken or read aloud. The writing of French from dictation is recommended as a useful exercise.

### Theoretical and Descriptive (Inorganic) Chemistry and Qualitative Analysis.

Each candidate will be required to pass a written examination in Theoretical and Descriptive (Inorganic) Chemistry and will be required to hand in, at the hour of this written examination, the original note-book in which



he recorded the work performed by him at school in Qualitative Analysis. This note-book must give evidence that the student has had practice in the analysis of solutions and solids containing several salts, and must bear the endorsement of his teacher, certifying that the notes are a true record of his work.

### History (including Historical Geography).

Either of the two following groups, each including two fields of historical study :—

1. *Greek and Roman History*.—(a) Greek History to the death of Alexander, with due reference to Greek life, literature, and art. (b) Roman History to the accession of Commodus, with due reference to literature and government.

2. *English and American History*.—(a) English History, with due reference to social and political development. (b) American History, with the elements of Civil Government.

For preparation in each of the two historical fields presented, a course of study equivalent to at least three lessons a week for one year will be necessary.

The candidate will be expected to show on examination such general knowledge of each field as may be acquired from the study of an accurate text-book of not less than 300 pages, supplemented by suitable parallel readings amounting to not less than 500 pages. The examination will call for comparison of historical characters, periods, and events, and in general for the exercise of judgment as well as of memory. Geographical knowledge will be tested by means of an outline map.

In the judgment of the Department of History it is desirable that Greek and Roman History be offered as a part of the preparation of every candidate.

### Algebra.

Algebra, through Quadratic Equations.

The requirement in Algebra includes the following subjects: factors, common divisors, and multiples, fractions, ratios and proportions; negative quantities and the interpretation of negative results; the doctrine of exponents; radicals, and equations involving radicals; the binomial theorem for positive integral powers of the binomial, and the extraction of roots; putting questions into equations and the reduction of equations; the ordinary methods of elimination and the solution of both numerical and literal equations of the first and second degrees with one or more unknown quantities and of problems leading to such equations.

The student should cover carefully the whole ground here specified, and should acquire a thorough understanding not only of the practice, but of

the reasons involved in the elementary algebraic rules; for example, in the rules of multiplication, of signs, and of exponents, in the rules for fractions, and in those relating to the reduction and solution of equations. He should train himself to practical skill by the solution of a large number of examples, and should learn to do his work with reasonable quickness, as well as with confidence, accuracy, and clearness. The solution of fairly complicated literal quadratics, the various methods of elimination for equations of the first two degrees, the putting of problems in a neat manner into equations, and the working of the various algebraic operations both for integral and fractional expressions may be mentioned as important subjects of attention. The student should be taught to arrange his work in a clear, orderly, and compact fashion.

The time supposed to be devoted to the systematic study of the requirement in Algebra is the equivalent of a course of three lessons a week through two school years.

### Geometry.

Plane and Solid Geometry, including problems in mensuration of plane and solid figures, and original propositions in Plane Geometry.

Geometric education should begin in the kindergarten or primary school, where the child should acquire familiarity through the senses with simple geometric forms, by inspecting, drawing, modelling, and measuring them, and noting their more obvious relations. This study should be followed, in the grammar school, by systematic instruction in Concrete (or Observational) Geometry, of which geometric drawing should form a part. Such instruction should include the main facts of Plane and Solid Geometry, treated as matters of observation, and not as exercises in logical deduction, without however necessarily excluding the beginnings of deductive proof as soon as the pupil is ready for them. Concrete Geometry is believed to have important educational value, and to prepare an excellent foundation for the later study of Formal Geometry. It belongs, however, to the earlier stages of school work, and should not be postponed until the time that belongs to direct preparation for college or the scientific school.

In teaching Formal Geometry, stress should be laid from the outset on accuracy of statement and elegance of form, as well as on clear and strict reasoning. As soon as the pupil has begun to acquire the art of rigorous demonstration, his work should cease to be merely receptive, he should be trained to devise constructions and demonstrations for himself, and this training should be carried through the whole of the work in Plane Geometry. Teachers are advised, in their selection of a text-book, to choose one having a clear tendency to call out the pupil's own powers of thought, prevent the formation of mechanical habits of study, and encourage the



concentration of mind which it is a part of the discipline of mathematical study to foster. The subject of Geometry, not a particular treatise, is what the pupil should be set to learn; and its simpler methods and conceptions should be made a part of his habitual and instinctive thought. Lastly, the pupil should be stimulated to good work by interest in the study felt and exhibited by the teacher.

The requirement in Geometry embraces the following topics: the general properties of plane rectilinear figures; the circle and the measure of angles; similar polygons; areas; regular polygons, and the measure of the circle; the relations of planes and lines in space; the properties and measure of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle. The propositions required under these several heads are those only which are contained in the older treatises, and which are recognized as constituting the Elements of Geometry. The examination does not include the additions introduced into some recent text-books, although most of those additions are in themselves valuable for the student who has time and taste for extra study in this field. A syllabus of the required propositions has been prepared. [*This syllabus may be obtained, price 10 cents, at the Publication Office, 2 University Hall, Cambridge.*]

The examination in Geometry also includes original propositions in Plane Geometry, based on the propositions named in the syllabus, and problems in mensuration in both Plane and Solid Geometry; but excellence in book-work and in exercises immediately illustrating book-work will be allowed to offset in part any lack of skill in original work.

The time which it is recommended to assign to the systematic study of the requirement in Formal Geometry is the equivalent of a course of five lessons a week for one school year; but it is believed to be advisable to extend this allowance of time over two years.

### Plane Geometry.

The requirement in Plane Geometry is stated on pages 1-14 of the Syllabus mentioned above.

### Solid Geometry.

Chavenet's Geometry, revised and abridged (Philadelphia: J. B. Lipincott & Co.), Books VI, VII, VIII, and IX, will serve to indicate the nature and amount of the requirement in Solid Geometry.

### Anatomy, Physiology, and Hygiene.

A course of study and laboratory work equivalent to that described in a pamphlet entitled "An Outline of Requirements in Anatomy, Physiology, and Hygiene," issued by the University.

The candidate will be required to pass both a written and a laboratory examination. The written examination will test the range and thoroughness of his knowledge of the elements of Anatomy, Physiology, and Hygiene. The laboratory examination will test (a) his ability to perform the experiments described in the Outline of Requirements, and (b) his knowledge of the first aids to be rendered to the injured.

At the time of the laboratory examination the candidate must present the original note-book containing (with dates) the notes and drawings he has made in the course of his laboratory work, and bearing the endorsement of his teacher, certifying that the book is a true record of the pupil's own observations and experiments. An index of subjects should be appended.

### Botany and Zoölogy.

*Botany.*—A course of study and laboratory work equivalent to that indicated in an "Outline of Requirements in Botany," issued by the University. The course should extend through at least half of a school year, with five lessons a week. The laboratory work is to be directed especially to the external anatomy and the activities of our common plants.

*Zoölogy.*—A course of study and laboratory work equivalent to that described in a pamphlet entitled "An Outline of Requirements in Zoölogy," issued by the University. The course should extend through at least half of a school year, with five lessons a week, and should include the laboratory study of at least ten types of animals, with special reference to their external anatomy and their activities. These types are to be selected in accordance with directions given in the pamphlet named.

In Botany and in Zoölogy the candidate will be required to pass both a written and a laboratory examination. The written examination will test the range and thoroughness of his knowledge of the subject. The laboratory examination will test his skill in observation and experimentation, and his ability to apply names properly to the parts of the organisms studied.

At the time of the laboratory examination the candidate must present the original note-book containing (with dates) the notes and drawings he has made in the course of his laboratory work, and bearing the endorsement of his teacher, certifying that the book is a true record of the pupil's own observations and experiments. An index of subjects should be appended.

### Shopwork.

A course of instruction in the use of tools and in the ordinary processes employed in the working of wood or metal, equivalent to that described in a pamphlet entitled "An Outline of Requirements in Shopwork," issued

by the University. The course may embrace one or more of the following divisions : —

*Wood-working ;*  
*Blacksmithing ;*  
*Chipping, Filing, and Fitting ;*  
*Machine-tool Work.*

The candidate must be familiar with the name, construction, and operation of the tools commonly used in these processes, and will be expected to read ordinary mechanical drawings and to make freehand sketches of articles which are to be produced in the workshop.

The candidate is required to pass both a written and a laboratory examination. The written examination will test his knowledge of tools and mechanical processes, and of the properties of materials of common use in construction. He will be expected to show familiarity with approved methods for simple work in the branch in which he presents himself for examination, and to write an intelligible description of those methods, illustrated by such sketches as may be necessary to make them clear. The laboratory examination will test the candidate's skill in the use of tools. He will receive the materials and specifications for a piece of work, and will be expected to select his tools, preparing them for use if necessary, and to demonstrate satisfactorily his knowledge and skill.

Every candidate is further required to present the original note-book in which he entered the descriptions and sketches of the work he performed at school; and with this he may present, as evidence of his skill in the workshop, the models made by him at school. Both the note-book and the models must be accompanied by the endorsement of his teacher, certifying that the book is a true record, and that the models are specimens of the pupil's own work.

### REGISTRATION.

The academic year 1903-04 begins on Thursday, October 1, 1903. All students register at the School on North Grove Street, on that day at 9 A.M.

### ARRANGEMENT OF STUDIES.

The following is the plan of study in the successive years of the School : —

*First Year.* — Anatomy-dissection, Physiology, Histology and Embryology; Physiological Chemistry.

*Second Year.* — Oral Pathology, Operative Dentistry, Oral Surgery, Mechanical Dentistry, and Orthodontia; General and Dental Materia Medica and Therapeutics; Bacteriology; Crown and Bridge Work and

Metallurgy: practical work daily in the mechanical laboratory and in the operative infirmary.

*Third Year.* — Operative Dentistry, Oral Surgery, Mechanical Dentistry, and Orthodontia, Neurology, Surgical Pathology and Surgery, Crown and Bridge Work and Metallurgy; Dental Jurisprudence; practical work in operative infirmary and mechanical laboratory.

## COURSES OF INSTRUCTION.

NOTE. — The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

### Anatomy.

THOMAS DWIGHT, M.D., LL.D., *Parkman Professor of Anatomy.*

FRANKLIN DEXTER, M.D., *Associate Professor of Anatomy.*

JOHN WARREN, M.D., *Demonstrator of Anatomy.*

SEABURY W. ALLEN, M.D., *Assistant in Anatomy.*

HARRIS P. MOSHER, M.D., *Assistant in Anatomy.*

ERNEST B. YOUNG, M.D., *Assistant in Anatomy.*

CHARLES S. BUTLER, M.D., *Assistant in Anatomy.*

HENRY O. MARCY, JR., M.D., *Assistant in Anatomy.*

GEORGE S. WHITESIDE, M.D., *Assistant in Anatomy.*

LINCOLN DAVIS, M.D., *Assistant in Anatomy.*

FREDERICK WINSLOW STETSON, M.D., *Assistant in Anatomy.*

The instruction consists of lectures; various practical exercises, including abundant dissection under the direction of the Associate Professor; recitations; and demonstrations. The means and methods of illustrating the anatomical lectures properly are unrivalled in this country. The system of demonstrations to small sections has been greatly extended.

*Text-books.* — Gray. Morris. Quain. Cunningham. Gerrish. Dwight, *Frozen Sections of a Child.* Treves, *Applied Anatomy.* Dexter, *Anatomy of the Peritoneum.*

*Collateral Reading.* — Testut, *Anatomie Humaine.* Tillaux, *Anatomie Topographique.* Holden, *Osteology.* Humphry, *Human Skeleton.* Morris, *on the Joints.*

### October.

Lectures. Professor DWIGHT. <i>Daily.</i>	24
Demonstrations and study of bones and joints. <i>Three hours daily.</i>	72

### November and December.

Lectures. Professor DWIGHT. <i>Twice a week.</i>	16
Demonstrations. Professor DEXTER. <i>Four times a week to each section of the class.</i>	32
Practical anatomy with recitations. <i>Three hours a day, five times a week.</i>	120



*January.*

Lectures and demonstrations. Professor DWIGHT. <i>Every Saturday.</i>	4
Lectures. Professor DEXTER. <i>Daily.</i>	24
Demonstrations. Dr. WARREN. <i>Five times a week to each section of the class.</i>	20
Demonstrations and study of the brain and organs of sense. <i>Three hours a day, five times a week.</i>	60
Practical anatomy with recitations. <i>Three hours a day, five times a week.</i>	60

**Histology and Embryology.**

CHARLES S. MINOT, S.D., LL.D., *Professor of Histology and Human Embryology.*

WILLIAM R. P. EMERSON, M.D., *Assistant in Histology.*

JAMES C. DONOGHUE, M.D., *Assistant in Histology.*

RALPH C. LARRABEE, M.D., *Assistant in Histology.*

JOHN L. BREMER, M.D., *Instructor in Histology and Embryology.*

FREDERIC T. LEWIS, M.D., *Instructor in Histology and Embryology.*

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ERNEST E. TYZZER, M.D., *Austin Teaching Fellow in Histology and Embryology,*

**LABORATORY.**

The laboratory comprises a general class room with places for ninety men, and four smaller rooms for the officers of instruction, advanced workers, and for the library and collections. There are 215 microscopes for students' use, which are let to students for three dollars a term. There are over 13,000 permanent preparations used in the class work, a histological collection illustrating most of the features of the microscopic structure of the higher animals, and an embryological collection which includes nearly five hundred embryos of various selected vertebrates cut into serial sections, and thoroughly catalogued. There are also numerous wax and paper models for use in the course of instruction.

The equipment includes numerous microtomes, most of the leading patterns being represented, and many other pieces of apparatus, offering altogether ample facilities for elementary and advanced work and for investigation.

The library consists of complete sets of the most important histological and embryological journals, of the standard text-books, and of a private collection, which is open to investigators, of about four thousand pamphlets. A card catalogue and a classified bibliography is maintained, which gives ready access to the literature of histology and embryology.



*Text-books.*—Stöhr, Manual of Histology. Böhm and von Davidoff, A Text-Book of Histology.

*Collateral Reading.*—Quain, Anatomy. Lee, Microtometist's Vademecum. Kölliker, Gewebelehre. Minot, Human Embryology. Marshall, Vertebrate Embryology.

#### REGULAR COURSES.

Histology is taught by lectures and laboratory work; twenty-two hours a week are required during October, November, and December, and sixteen hours during January. Every student is recommended to purchase a microscope, but microscopes may be rented, by those who do not possess them, for three dollars a term. Each student is charged a laboratory fee of two dollars.

##### October.

Lectures. Professor MINOT. <i>Six times a week.</i>	24
Laboratory work. Drs. EMERSON, DONOGHUE, LARRABEE, BREMER, and LEWIS. <i>Three hours, five times a week.</i>	60

##### November and December.

Lectures. Professor MINOT. <i>Twice a week.</i>	16
Laboratory work. <i>Four hours, four times a week; three hours, once a week.</i>	152

#### Physiology.

HENRY P. BOWDITCH, M.D., LL.D., D.Sc., *Professor of Physiology.*

WILLIAM T. PORTER, M.D., *Associate Professor of Physiology.*

WALTER B. CANNON, M.D., *Instructor in Physiology.*

———, *Instructor in Physiology.*

———, *Assistant in Physiology.*

———, *Assistant in Physiology.*

———, *Assistant in Physiology.*

*First Year.*—The method of teaching Physiology consists in placing before the student the classical experiments of the science grouped in the most instructive sequence. The student himself performs as many of these as his own skill and the length of the course permit. What he does he is required to do well. The experiments selected are those which best illustrate the several groups or chapters of which physiology is composed. Preference, where possible, is given to observations used in clinical medicine. The observations which he cannot himself make the student reads with an understanding grounded on his own practical experience. The facts thus gained are discussed in conferences, written tests, formal lectures, and recitations.

In the laboratory the student works fourteen hours a week during six weeks, and ten hours a week during the ten other weeks of the course. Each student is required to preserve in his laboratory note-book the graphic records obtained in his experiments, together with a brief account of his own observations. The character of the laboratory instruction may be seen from the examination questions, page 72.

The conferences are held for half an hour five times a week for fifteen weeks. They are devoted to questions and explanations concerning the experimental work, and are in fact a combination of recitation and lecture.

The written tests are twenty-minute examinations and one-hour examinations held weekly during fifteen weeks. The following are some of the questions: State experiments to show where stimulation begins on closure of the galvanic current. What is the reaction of degeneration? Mark on the intra-ventricular pressure curve the moment of opening and closure of the mitral and aortic valves. Give a brief account of the digestion of fat. Give evidence to show that afferent impulses are transmitted by the posterior roots of spinal nerves. Prove the existence of "hot and cold spots" on the skin. Cite experiments to show that the crystalline lens changes its shape in accommodation.

Formal lectures illustrated with demonstrations are held five times a week from the sixth to the fifteenth week inclusive.

One recitation is given weekly during fifteen weeks.

A special demonstration is given every Saturday during fifteen weeks; the motor area of the cortex of the brain, and the action of the chorda tympani nerve on the secretion of saliva are examples of the subjects chosen for demonstration.

Each student is required to write a physiological thesis, the material for which must be taken directly from the report of the original investigations. In addition, each student is required to prepare at least one investigation not included in those used for his thesis. About sixty of the theses are selected for discussion by the class and staff. The subjects chosen are as a rule such as will supplement the instruction given in other ways. The discussions are held five times a week from the sixth to the fifteenth week inclusive. The discussion is opened by three students, each of whom has prepared himself upon some of the original investigations included in the theses, and is continued by the members of the class and of the staff. Among the theses discussed in the last collegiate year were: The excretion of urea by the kidneys; Internal secretion of the pancreas; Bacteria in health; Oedema; Regeneration of blood after hemorrhage; Artificial parthenogenesis; and Aphasia.

From twenty-five to forty optional lectures are given. The majority of these are discussions of original investigations made by the lecturer,

for example: Results of closure of the coronary arteries of the heart; Nutrition of the heart through the vessels of Thebesius; Changes in the cells of the pancreas during secretion; Cortical localization of habits; Influences affecting contraction of smooth muscle; Movements of the food in the intestines: Growth of school children.

During the last two weeks of the course students who have performed the regular laboratory work with distinction may elect to perform special experimental work. Each student is provided with a sufficiently circumscribed subject, the original sources, a method, and the necessary apparatus. With this careful preparation, the fundamental discoveries in the subject chosen may be repeated, and the general plan of work pursued by all students of biological science acquired.

*Text-books.* — Text-book of Physiology, edited by E. A. Schäfer. Foster, Text-book of Physiology. American Text-book of Physiology. Waller, Human Physiology. Hermann, Lehrbuch der Physiologie. Porter, Introduction to Physiology. Porter, Laboratory Text-book of Physiology.

#### FIRST YEAR (Second half).

Laboratory experiments. Professor W. T. PORTER and Dr. CANNON.

*Daily, except Saturday.* 180

Conference (75). Professor W. T. PORTER and Dr. CANNON. *Daily, except Saturday. First to fifteenth week, inclusive.* 33

Written tests (60). *Twenty minutes daily, except Monday and Saturday. First to fifteenth week, inclusive.* 25

Written tests (15). *One hour, Mondays. First to fifteenth week, inclusive.*

Lectures, with demonstration (50). Professor W. T. PORTER and Dr. CANNON. *Daily, except Saturday. Sixth to fifteenth week, inclusive.* 25

Special demonstrations (15). Professor W. T. PORTER and Dr. CANNON. *Saturdays. First to fifteenth week, inclusive.* 15

Recitations (15). Professor BOWDITCH. *Saturdays. First to fifteenth week, inclusive.* 15

Discussion of Theses (50). *Daily, except Friday. Sixth to fifteenth week, inclusive.* 40

Thesis. Written by each student from the original sources.

Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.

Special experimental work. Optional during the fifteenth and sixteenth weeks, for selected students.



### Physiological and Pathological Chemistry.

EDWARD S. WOOD, M.D., *Professor of Chemistry.*

WILLIAM B. HILLS, M.D., *Associate Professor of Chemistry.*

JOHN M. CONNOLLY, M.D., *Assistant in Chemistry.*

HENRY F. HEWES, M.D., *Instructor in Clinical Chemistry.*

ROBERT L. EMERSON, M.D., *Instructor in Physiological Chemistry.*

PERCY MUSGRAVE, M.D., *Assistant in Chemistry.*

CARL L. ALSBERG, M.D., *Assistant in Physiological Chemistry.*

*First year.*—The course in Physiological Chemistry extends through eight weeks and consists of a lecture, demonstration, or recitation daily, and of six laboratory exercises of two to three hours' duration a week. The course is so arranged that the student is enabled to conduct his laboratory work on the various subjects included in the course in direct connection with the lecture room instruction.

The subjects studied in this course are the carbohydrates; the proteids, their composition, relationships, chemical properties, methods of precipitation and separation; the fats; the chemistry of epithelial, connective, muscular, and nervous tissues; the chemistry of digestion; bile; blood; lymph; and urine.

During the second half of the course (Pathological Chemistry) special attention is given to the clinical study of the urine. Each student examines, chemically and microscopically, a large number of specimens, and becomes thoroughly familiar with the composition of this secretion in normal and pathological constituents. The best methods for the quantitative determination of the more important normal and pathological constituents of the urine are also taught. The class in sections receives instruction in the diagnosis of renal and other diseases from the examination of the urines, and also has practical work in the examination of the blood and of gastric contents.

Opportunities for special investigation will be offered such students as can give the necessary time in the laboratory.

Lectures and demonstrations. Professors WOOD and HILLS. *Half an hour daily during first eight weeks; one hour three times a week during second eight weeks.*

48

Laboratory exercises. Professors WOOD and HILLS, and Drs. HEWES, EMERSON, and ALSBERG. *Daily for three hours during first eight weeks; two hours a day three times a week, three hours twice a week, during second eight weeks.*

240

*Text-books.*—Hammarsten, *Physiological Chemistry*. Ogden, *Clinical Examination of the Urine*. Tyson, *Practical Examination of Urine*. Wharton and Stillé, *Medical Jurisprudence*, Vol. II, on Poisons.

*Collateral Reading.* — Halliburton, Text-book of Chemical Physiology and Pathology. Simon, Physiological Chemistry. Bunge, Physiologic and Pathologic Chemistry. Herter, Lectures on Chemical Pathology. Gamgee, Physiological Chemistry of the Animal Body. Roberts, Urinary and Renal Diseases. Purdy, Practical Urinalysis and Urinary Diagnosis. Taylor on Poisons. Lea, Chemical Basis of the Animal Body (appendix to Foster's Text-book of Physiology). Vaughan and Novy, Cellular Toxins.

### Bacteriology.

HAROLD C. ERNST, M.D., *Professor of Bacteriology.*

CALVIN G. PAGE, M.D., *Assistant in Bacteriology.*

FRANCIS P. DENNY, M.D., *Assistant in Bacteriology.*

WILLIAM HENRY ROBEY, Jr., M.D., *Assistant in Bacteriology.*

HENRY J. PERRY, M.D., *Assistant in Bacteriology.*

EUGENE E. EVERETT, M.D., *Assistant in Bacteriology.*

HERBERT P. JOHNSON, Ph.D., *Assistant in Bacteriology.*

LANGDON FROTHINGHAM, M.D.V., *Austin Teaching Fellow in Bacteriology.*

Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Lectures. PROFESSOR ERNST. *Daily, except Saturdays, during October and November.* 40

Laboratory work. PROFESSOR ERNST, and Drs. PAGE, DENNY, ROBEY, PERRY, EVERETT, FROTHINGHAM, and JOHNSON. *Two to three hours daily during October and November.* 120

*Text-books.* — Muir and Ritchie. Abbott. Park.

*Collateral Reading.* — Sternberg. Heim. Migula.

### Operative Dentistry and Oral Surgery.

THOMAS FILLEBROWN, M.D., D.M.D., *Professor of Operative Dentistry and Oral Surgery.*

WILLIAM H. POTTER, D.M.D., *Assistant Professor of Operative Dentistry.*

EZRA F. TAFT, D.M.D., *Instructor in Operative Dentistry.*

FORREST G. EDDY, D.M.D., *Instructor in Operative Dentistry.*

JULIUS G. W. WERNER, D.M.D., *Clinical Instructor in Operative Dentistry.*



DWIGHT M. CLAPP, D.M.D., *Clinical Lecturer in Operative Dentistry.*  
 EDWIN C. BLAISDELL, D.M.D., *Instructor in Operative Dentistry.*  
 FREDERICK BRADLEY, D.M.D., *Instructor in Operative Dentistry.*  
 ELLIS P. HOLMES, D.M.D., *Instructor in Operative Dentistry.*  
 CHARLES E. PERKINS, D.M.D., *Instructor in Operative Dentistry.*  
 JOSEPH T. PAUL, D.M.D., *Instructor in Operative Dentistry.*  
 GEORGE R. GRAY, D.D.S., D.M.D., *Instructor in Operative Dentistry.*  
 DWIGHT W. DICKINSON, D.M.D., *Assistant Demonstrator of Operative Dentistry.*

EDWIN L. FARRINGTON, D.M.D., *Instructor in Operative Dentistry.*  
 ROBERT J. McMEEKIN, D.M.D., *Demonstrator of Operative Dentistry.*  
 FRANCIS H. HARDING, D.M.D., *Instructor in Operative Dentistry.*  
 ERNEST J. HART, D.M.D., *Instructor in Extracting and Anaesthesia.*  
 WILLIAM D. SQUAREBRIGS, D.M.D., *Instructor in Extracting and Anaesthesia.*  
 WILFRED H. STARRATT, D.M.D., *Instructor in Operative Dentistry.*  
 EVAN P. WENTWORTH, D.M.D., *Instructor in Operative Dentistry.*  
 SAMUEL T. ELLIOTT, D.M.D., *Instructor in Operative Dentistry.*  
 LESLIE H. NAYLOR, D.M.D., *Instructor in Operative Dentistry.*

The instruction in this department is both didactic and practical. The Professor and other instructors endeavor to demonstrate all known methods of performing operations upon the teeth and other tissues involved.

The treatment of decay, the materials used for filling teeth, the most approved instruments and appliances used in operating upon the teeth, are appropriately discussed. Clinics are held at the Infirmary, and every available means used to make the student practically acquainted with all the modern improvements of this important branch of dental science; but no student will be permitted to operate at the chair until he has by observation and practice on extracted teeth satisfied the Professor of his fitness.

*Clinical Lectures on Operative Dentistry.*—These exercises include operations on patients, demonstrations and exhibition of models, showing the individual methods of the lecturers with descriptions and explanations.

Lectures. Professor FILLEBROWN and Asst. Professor POTTER.	<i>Twice</i>
<i>a week.</i>	60
Oral Surgery. Lectures and Clinics. Professor FILLEBROWN	<i>Once a</i>
<i>week.</i>	30
Clinical lectures. Dr. CLAPP and Dr. STARRATT.	<i>Once a week, for ten</i>
<i>weeks.</i>	10
Lectures and Demonstrations. Dr. WERNER.	<i>Once a week, for thirteen</i>
<i>weeks.</i>	13

Practical work. Drs. TAFT, EDDY, BLAISDELL, BRADLEY, HOLMES, PERKINS, PAUL, GRAY, DICKINSON, FARRINGTON, McMEEKIN, HARDING, WENTWORTH, ELLIOTT, and NAYLOR. *Fifteen hours a week, throughout the second and third years.* 960

Extracting Clinics. Drs. HART and SQUAREBRIGS. *Ten hours a week throughout the second and third years.* 600

*Text-books.* — Kirk, Operative Dentistry. Fillebrown, Operative Dentistry. Taft, Operative Dentistry. American System of Dentistry. Marshall's Oral Surgery. Morton's Cataphoresis.

### Anaesthesia.

*Text-books.* — Anstie, Stimulants and Narcotics. Turnbull, Artificial Anaesthesia.

### Mechanical Dentistry and Orthodontia.

EUGENE H. SMITH, D.M.D., *Professor of Mechanical Dentistry and Orthodontia.*

WILLIAM P. COOKE, D.M.D., *Asst. Professor of Mechanical Dentistry.*

ARTHUR H. STODDARD, D.M.D., *Clinical Lecturer in Mechanical Dentistry.*

ALLEN S. BURNHAM, D.M.D., *Instructor in Mechanical Dentistry.*

THOMAS B. HAYDEN, D.M.D., *Instructor in Mechanical Dentistry.*

ASHER H. ST. C. CHASE, D.M.D., *Assistant Demonstrator of Mechanical Dentistry.*

HAROLD DEW. CROSS, D.M.D., *Demonstrator of Mechanical Dentistry, and Lecturer on the Mechanical Treatment of Fractured Jaws and Cleft Palates.*

JOHN D. DICKINSON, D.M.D., *Clinical Instructor in Mechanical Dentistry.*

LAWRENCE W. BAKER, D.M.D., *Assistant in Orthodontia.*

HARRY L. GRANT, D.M.D., *Instructor in Mechanical Dentistry.*

ERNEST H. CHUTE, D.M.D., *Instructor in Mechanical Dentistry.*

HARRY S. PARSONS, M.D., D.M.D., *Instructor in Mechanical Dentistry.*

JOHN W. DICKINSON, D.M.D., *Instructor in Mechanical Dentistry.*

Lectures and practical work in the laboratory; the manner in which mineral teeth are constructed, the principles and method of carving and furnace-work, and all compounds used for artificial teeth; and the manner in which gold and silver plates are prepared and adapted to the mouth; the use of rubber and other articles as bases. It is the aim to teach not only the mere mechanical processes of Dentistry, but that combination of art with mechanism which enables the practitioner to effect so much in

restoring the symmetry of the face and usefulness of the teeth, where they have been lost or impaired by accident or disease.

*Orthodontia* is taught by lectures and by practical work in the Infirmary. Models of cases are shown, and students are made familiar with the principles underlying the irregularities and the various appliances for their correction.

Lectures. Professor SMITH. <i>Once a week.</i>	30
Practical work. Drs. ELDRED, BURNHAM, HAYDEN, CHASE, CROSS, GRANT, CHUTE, PARSONS, and DICKINSON. <i>Eighteen hours a week, throughout the second and third years.</i>	1080
Orthodontia Clinics. Professor SMITH and Dr. BAKER. <i>Once a week, throughout the third year.</i>	30
Conferences. Dr. BAKER. <i>Twice a week.</i>	30
Clinical Lectures. Dr. CROSS. <i>Once a week, during first half of the third year.</i>	15
Clinical Lectures. Dr. STODDARD. <i>Once a week for five weeks, followed by demonstrations in Continuous Gum and Inlay Work in Mechanical Laboratory.</i>	
Clinical Instruction. Dr. J. D. DICKINSON. Private Laboratory. <i>Once a week, during April.</i>	8

*Text-books.* — Essig, American Text-book of Prosthetic Dentistry. Richardson, Mechanical Dentistry. Kingsley, Oral Deformities. Harris, Principles and Practice. Harris, Dictionary of Dentistry.

### Orthodontia.

*Text-books.* — Farrar, Irregularities of the Teeth. Talbot, Irregularities. Guilford, Orthodontia. Angle, Treatment of Malocclusion of the Teeth and Fractures of the Maxillae.

### Crown and Bridge Work and Metallurgy.

WILLIAM P. COOKE, D.M.D., <i>Assistant Professor of Mechanical Dentistry.</i>	
ARTHUR W. ELDRED, D.M.D., <i>Instructor in Mechanical Dentistry.</i>	
Lectures and specimen work in laboratory, followed by practical work in the Infirmary.	
Lectures and demonstrations. Asst. Professor COOKE. <i>Once a week.</i>	30
Demonstrations. Dr. ELDRED. <i>Once a week.</i>	75

*Text-books.* — Evans, Crown and Bridge Work. Essig, American System of Dentistry. Hodgen, Dental Metallurgy. Essig and Koenig, Dental Metallurgy.

## Surgery.

J. COLLINS WARREN, M.D., LL.D., *Professor of Surgery.*

Lectures and recitations in Oral Surgery illustrated by colored drawings and by recent and morbid specimens. All approved instruments and apparatus are exhibited and explained. Operations are performed on the living subject at the hospital, and upon the dead body. Instruction is given in the use of anaesthetics.

Instruction in Clinical Surgery is given at the Massachusetts General Hospital and the City Hospital every week.

Lectures. Professor WARREN.

*Text-books.* — An American Text-book of Surgery. Warren, Surgical Pathology. Garretson, Oral Surgery.

## Operative Surgery.

Operations are performed before the students one day each week throughout the year in the Amphitheatres at the Massachusetts General Hospital and the Boston City Hospital.

The Surgical cases at the Eye and Ear Infirmary and at the Boston Dispensary are shown by the surgeons in charge.

## Surgical Pathology.

GEORGE H. MONKS, M.D., *Instructor in Surgical Pathology.*

Lectures and recitations embracing the subjects of shock, inflammation, repair, suppuration, ulceration, mortification, embolism, pyaemia, erysipelas, and tetanus.

Lectures. Dr. MONKS. *Once a week for ten weeks.* 10

Followed by clinics in the Boston City Hospital.

*Text-book.* — Warren, Surgical Pathology.

## Dental Pathology.

CHARLES A. BRACKETT, D.M.D., *Professor of Dental Pathology.*

In the beginning of the course of lectures the general principles of Pathology, including Etiology, Nosology, Semeiology, Diagnosis, and Prognosis, are outlined. The various pathological conditions in their relations to one another and their modifications of structure and function are taught. This prepares the way for the special pathology of the region with which the dentist has most to do. The diseases of the dental and contiguous tissues are considered in detail, with reference to their nature,



causes, manifestations and terminations, and their relations with systematic conditions.

Lectures. Professor BRACKETT. *Once a week.* 30

*Text-books.* — Barrett, Oral Pathology and Practice. Miller, Micro-organisms of the Human Mouth.

*Collateral Reading.* — Warren, Surgical Pathology and Therapeutics. Burchard, Dental Pathology, Therapeutics, and Pharmacology.

### **Materia Medica and Therapeutics.**

EDWARD C. BRIGGS, M.D., D.M.D., *Professor of Dental Materia Medica and Therapeutics.*

CHARLES W. RODGERS, D.M.D., *Assistant in Dental Materia Medica.*

Lectures, recitations, and demonstrations of crude drugs and their preparations. This is a complete course, as taught in the Medical School to medical students. Remedies are classified, however, to meet the special requirements of the dental practitioner, and the student is particularly instructed upon those remedies which, as a specialist, he will be called upon most to use.

Lectures. Professor BRIGGS. *Once a week.* 30

Recitation and instruction in prescription writing. Dr. RODGERS. *Twice a week during December and January. Once a week, second half-year.* 30

*Text-books.* — Potter, Materia Medica, Pharmacy, and Therapeutics. Wood, Therapeutics, Materia Medica, and Toxicology. Bartholow, Materia Medica, and Therapeutics. Butler, Materia Medica, Pharmacology, and Therapeutics. Shoemaker, Materia Medica, Pharmacology, and Therapeutics.

*Collateral Reading.* — Hare, Practical Therapeutics. Thompson, Dietetics.

### **Neurology.**

EDWARD W. TAYLOR, M.D., *Instructor in Neurology.*

A course of four lectures on Neurology will include a brief review of the anatomy and physiology of the nervous system, the anatomy of the trifacial nerve being made the subject of special study.

The nervous disturbances liable to be set up by dental irritation, and, conversely, those likely to produce odontalgia, will be considered as fully as the limited nature of the course permits, special attention being paid to trifacial neuralgia.

Lectures. Dr. TAYLOR. *Once a week for four weeks.* 4



### CLINICAL ADVANTAGES.

The Dental School is established in Boston in order to secure those advantages for Clinical Instruction which are found only in large cities.

The clinics of the Dental Hospital afford a sufficient number of patients to give every student abundant practice in all branches of Dentistry throughout the year.

Each student is assigned a chair, and is expected to improve his opportunity and operate three hours every day, five days in the week, giving each student during each year 480 hours of practice in Operative Dentistry.

In the mechanical department the student gives three hours a day for six days each week, giving 576 hours of practice each year.

*Dental Statistics.* — For the year 1902 :

#### Operative department : —

No. of patients treated . . . . .	7,789
“ “ “ for diseases of the teeth	
and gums . . . . .	2,809
“ sets of teeth cleaned . . . . .	1,497
“ operations . . . . .	19,981
“ fillings — gold . . . . .	3,236
“ “ amalgam . . . . .	2,063
“ “ cement . . . . .	1,718
“ “ gutta percha . . . . .	3,680
“ porcelain inlays . . . . .	10

#### Other Surgical cases : —

Necrosis . . . . .	11
Abscess . . . . .	11
Antrum disease . . . . .	3
Tumor . . . . .	3
Epulis . . . . .	1
Hare lip . . . . .	4
Cleft palate . . . . .	3
Exsection of inferior dental nerve . . . . .	1
Ulcer . . . . .	1
Dental cyst . . . . .	1

#### Mechanical department. — Service to patient : —

No. of sets of artificial teeth . . . . .	273
“ “ “ repaired . . . . .	121
“ cases of fractured jaws . . . . .	33
“ appliances for fractured jaws . . . . .	52
“ cleft palate appliances . . . . .	9
“ splints for cleft palate operations . . . . .	4
“ obturators and appliances for cleft palates . . . . .	11
“ appliances for nose . . . . .	1

## Mechanical Laboratory. — Practice work :—

Sets of artificial teeth . . . . .	142
Splints for fractured jaws . . . . .	2
Vulcanite plates repaired . . . . .	18
“ “ . . . . .	233
Angle appliances . . . . .	3

## Orthodontia. — Service to patients.

No. of patients treated for irregularities of the teeth . . . . .	93
“ appliances . . . . .	174

## Orthodontia. — Practice work :—

No. of articulated models of regulating cases .	132
“ regulating appliances . . . . .	181

## Crown and Bridge Work. — Service to patients :—

No. of crowns and caps . . . . .	152
“ “ repaired . . . . .	15
“ pieces of bridge work . . . . .	27
“ pieces of bridge work repaired . . . . .	7
“ porcelain inlays . . . . .	31
“ “ tips . . . . .	1

## Crown and Bridge Work. — Practice work :—

No. of crowns and caps . . . . .	420
“ bridges . . . . .	130
“ porcelain tips . . . . .	29
“ porcelain inlays . . . . .	55
“ carved teeth models . . . . .	29

*The Massachusetts General Hospital.* — During the past year, more than five thousand patients were treated in the wards, and over thirty thousand in the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, on four days in the week. Operations are numerous, and are performed in the amphitheatre, which is provided with seats for 400 persons.

*The Boston City Hospital.* — During the past year, about nine thousand cases were treated in its wards, and twenty-two thousand in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, eight hundred street accidents are reported yearly.

In these two hospitals, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching nearly

two thousand a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

*The Boston Dispensary.*—More than forty thousand patients were treated at this public charity during the past year. A new building has lately been erected at a cost of \$50,000, where students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery.

*The Massachusetts Charitable Eye and Ear Infirmary.*—Over twenty thousand patients were treated at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

### LIBRARIES AND MUSEUMS.

The College Library at Cambridge is open to students, and also the Library of the Boston Medical Library Association, which has a dental section containing a large and very complete collection of dental literature. It includes the libraries of the American Academy of Dental Science, and the Massachusetts Dental Society. There is a good reference library of modern books, including encyclopaedias, systems, etc. The Library is open daily except Sundays and holidays, from 9 A.M. to 6 P.M. It is also open Tuesday and Friday evenings from 7 to 10, except during July and August.

The Dental School Library also contains about five hundred well selected volumes to which the students and graduates of the School have free access.

The Boston Public Library is open to students who are inhabitants of Boston. Students who are not inhabitants of Boston, who have filed bonds at the Treasurer's office, or deposited with the Treasurer the sum of fifty dollars, may also use this Library.

The Dental Museum is in charge of Dr. WALDO ELIAS BOARDMAN, *Curator*. It contains over 3000 specimens, and offers unusual facilities for study of the teeth. The pathological anatomy of the teeth is shown by more than 1600 specimens, among which are over 200 dissected teeth showing formations of secondary dentine in the pulp cavity, and also many other rare specimens of great value. There are 600 other specimens of human and comparative anatomy, illustrating a wide range of knowledge.

## WARREN ANATOMICAL MUSEUM IN THE MEDICAL SCHOOL.

The Warren Anatomical Museum was founded in 1847 by JOHN COLLINS WARREN, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to JOHN WARREN, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. Its Curator is Dr. WILLIAM FISKE WHITNEY.

The collection has about nine thousand specimens, illustrating both normal and pathological anatomy and materia medica. These are placed in the hands of the student at any time during the day, upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosive preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

## EXAMINATIONS.

The final examination in every required subject is held at the close either of the first or of the second term of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The examination in certain studies of the first year is held at *mid-year* only, and is for those who are members of the School at the time, and for those entitled to apply for the degree, provided they have failed previously in those subjects. The *June examination* is only for those who are members of the School at the time, and for those entitled to apply for the degree. The *September examination* is for conditioned students or for applicants for advanced standing. In some branches a portion of the examination consists of practical work in the laboratory.

The amount of time allowed for each examination is as follows :—

*First Year.*—Anatomy\* (practical, 4 hrs.), Histology\* (1 hr.), Physiology (3 hrs.), Physiological and Pathological Chemistry (3 hrs.).

*Second Year.*—Dental Pathology (3 hrs.), Materia Medica and Therapeutics (2 hrs.), Operative Dentistry (3 hrs.), Bacteriology\* (1 hr.).

*Third Year.*—Operative Dentistry (2 hrs.), Surgical Pathology and Surgery (3 hrs.), Mechanical Dentistry (2 hrs.), Orthodontia (2 hrs.),

\* The examinations in these subjects are held at the end of the first half-year.



Crown and Bridge Work (2 hrs.). These examinations will include actual operations performed during the course, and the preparation of specimens of mechanical dentistry.

Students shall not be entitled to enter the third-year class in practical Operative and Mechanical Dentistry until they have shown reasonable proficiency in the work of the second year.

Applicants for advanced standing must pass all the examinations of the years which they desire to omit, or furnish proof that they have passed equivalent examinations.

No student will be allowed to anticipate the examinations in the regular programme of his year, except by special permission of the Administrative Board.

Those who fail in any subject may present themselves in that subject again at the next regular examination. The regular examinations for the year 1902-03 will begin June 1 and September 24, 1902. After two failures to pass in any subject, a charge of three dollars will be made for each subsequent examination in that subject.

### DIVISION OF STUDENTS.

Students are divided into three classes according to their lines of study and proficiency, and during their last year will receive largely increased opportunities for clinical instruction and for practice in actual operations on the natural teeth and mouth.

*In order that the time of study may count as a full year, students of all classes must present themselves within the first week of the academic year and register their names with the Dean.*

### REQUIREMENTS FOR THE DEGREE.

The degree of DOCTOR OF DENTAL MEDICINE (*Dentariae Medicinae Doctor*) may be conferred upon any candidate of adult age, and of good moral character, who has passed *all the required examinations*, and convinced the Professors and Instructors in Operative and Mechanical Dentistry of his ability to meet satisfactorily the requirements of his art. He must also give evidence of having studied Medicine or Dentistry in some recognized school three full years, the last continuous year of which must have been spent at this School.

The degree Doctor of Dental Medicine *cum laude* will be given to candidates who have pursued a complete three years' course in this School and obtained an average of eighty per cent. or over in all the required examinations.

No student may advance with his class until he has passed a satisfactory examination in a majority of the studies already pursued by his class.



The course is a graded one of three continuous years. *Graduates* from other reputable Dental Schools whose Course of Instruction consists of three years of nine months each will be permitted to enter the Senior class after passing the required examinations, or without examination, by special vote of the Administrative Board.

Candidates for the degree are obliged to apply for the same in writing, on blanks furnished at the Dean's office, on or before *May 31* of the year in which they propose to graduate.

### INSTRUMENTS.

With the exception of extracting instruments, lathes, and vulcanizers, each student will be required to furnish his own instruments, and appliances for both laboratory and operating room.

### FEES AND EXPENSES.

There are no fees for matriculation, for the diploma, or for the demonstrators. For the first year of a student's membership in the School, the fee is *two hundred dollars*, in two payments of *one hundred and twenty dollars* and *eighty dollars*, at the beginning of the several terms; for the second and third years, *one hundred and fifty dollars* each, in two payments of *one hundred dollars* and *fifty dollars*, at the beginning of the several terms; and for any subsequent year, *fifty dollars*, payable at the beginning of the year.

During the first year there are the following additional expenses: Two dollars for each of the three parts required for dissection; two dollars for laboratory materials in Histology; three dollars for physiological material; and a maximum of five dollars a year for chemical material, in addition to the charge for breakage of glass apparatus. Students who pay in advance are required to deposit with the Bursar six dollars to cover Anatomy charges, two dollars for Histology, and fifteen dollars for Chemistry and Physiology. The balances of these deposits are returnable at the end of the year.

A deposit of two dollars with the Dean of the Medical School will entitle a student to the use of a locker in the School building.

A student who wishes to rent a microscope of the School can do so upon payment of three to six dollars a half-year. During the second and third year a deposit of ten dollars is required to cover any loss or breakage of appliances in the Infirmary and Mechanical Laboratory. The balance of this deposit is returned at the close of the year.

*Graduates* of recognized Dental Schools, admitted to the courses in Operative and Mechanical Dentistry for the whole or any portion of the academic year, pay a fee of *fifty dollars* for each course.

Graduates of Harvard Dental School are admitted to both these courses by a payment of fifty dollars.

# TABULAR VIEW — 1902-03

## FIRST YEAR — First Half-Year

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10	<p><i>October, January.</i> Anatomy. L. Room C.</p> <p><i>November, December.</i> Section I, Dissection. Rooms D and F. Section II, Histology. Lab. Room G.</p>		<p>Anatomy. L. Room C.</p>	<p><i>October, January.</i> Anatomy. L. Room C.</p> <p><i>November, December.</i> Section I, Dissection. Rooms D and F. Section II, Histology. Lab. Room G.</p>		<p>Anatomy. L. Room C.</p>
10-1	<p>Section I, Anatomy. Dissection. Rooms D and F. Section II, Histology. Laboratory. Room G.</p> <p>Anatomy. 1st and 3d weeks. Section I, Rooms D and F. Section II, Room G. Anatomy. 2d and 4th weeks. Section I, Room G. Section II, Rooms D and F.</p>	<p><i>October, November, December.</i> Section I, Rooms D and F. Section II, Histology. Laboratory. Room G.</p> <p><i>January.</i></p>				<p><i>January.</i> Anatomy. L. Room C.</p> <p><i>Oct., Nov., Dec.</i> 11 A.M. Histology. L. Room C.</p>
2-3	<p><i>October, January.</i> Histology. L. Room G.</p> <p><i>November, December.</i> Section I, Histology. Lab. Room G. Section II, Anatomy. Lab. Rooms D and F.</p>		<p>Histology. L. Room G.</p>	<p><i>October, January.</i> Histology. L. Room C.</p> <p><i>November, December.</i> Section I, Histology. Lab. Room G. Section II, Anatomy. Lab. Rooms D and F.</p>		
3-6	<p>Section I, Histology. Lab. Room G. Section II, Anatomy. Dissection. Rooms D and F.</p> <p>Anatomy. 1st and 3d weeks. Section I, Room G. Section II, Rooms D and F. Anatomy. 2d and 4th weeks. Section I, Rooms D and F. Section II, Room G.</p>	<p><i>October, November, December.</i> Section I, Room G. Section II, Anatomy. Dissection. Rooms D and F.</p> <p><i>January.</i></p>				

## FIRST YEAR — Second Half-Year.

PHYSIOLOGY. FEBRUARY 8 TO MARCH 15.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-9.30	Conference. Room A.	Conference. Room A.				
9.30-9.50	Written Test. Rooms B and H.	Written Test. Rooms B and H.				
9.50-12	Laboratory Experiments. Rooms B and H.	Laboratory Experiments. Rooms B and H.				10-11 Recitation. Room A.
12-1	Recitation. In Sections. Rooms B and H.					11-12 Demonstration. Room A.

MARCH 17 TO MAY 31.

9-9.30	Lecture. Room A.	Lecture. Room A.	9-9.45 Discussion of Theses. Room A.
9.30-10	Conference. Room A.	Conference. Room A.	
10-10.20	Written Test. Rooms B and H.	Written Test. Rooms B and H.	10-11 Recitation. Room A.
10.20-12.15	Laboratory Experiments. Rooms B and H.	Laboratory Experiments. Rooms B and H.	
12.15-1	Recitation. In Sections. Rooms B and H.	Discussion of Theses. Room A.	11-12 Demonstration. Room A.

JUNE 1 TO JUNE 7.

Laboratory Experiments. Rooms B and H.

## PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY.

<i>First eight weeks.</i>		<i>Second eight weeks.</i>	
2-2.30	Lecture. Daily. Room A or E.	2-3	Lecture. Monday and Wednesday. Room A. Laboratory. Tuesday, Thursday, and Friday.
2.30-5.30	Laboratory. Daily. Room I.	3-4	Laboratory. Daily except Saturday.
		4-5	Lecture. Friday. Room A. Laboratory. Monday, Tuesday, Wednesday, and Thursday.

The studies of the first year are pursued at the Medical School, corner Boylston and Exeter Streets.

**TABULAR VIEW**  
**1902-03 — October**

**SECOND YEAR — First Half-Year**

DENTAL SCHOOL, NORTH GROVE ST.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Crown and Bridge Work and Metallurgy. Cooke. Clin. Lect. or Dem. Lect.-room B.	Mat. Medica and Thera., L. Briggs. Lect.-room B.	Op. Dent., L. Potter. Lect.-room B.	Mechan. Dentistry., L. Baker. <sup>1</sup> Cross. Lect.-room B.	L. Op. Dent., or Oral Surgery. Fillebrown. Lect.-room B.	Mechan. Dentistry or Or- thodontia. L. E. H. Smith. Lect.-rm. B.
10	Prac. Oper. Dentistry. Section A. Elliott. D. W. Dickinson. Asst. Dem. Pract. Mech. Dentistry. Section B. Cross, Dem. Chase. Asst. Dem.	Prac. Oper. Dentistry. Section B. Naylor. Elliott. D. W. Dickinson. Asst. Dem. Pract. Mech. Dentistry. Section A. Cross, Dem. Chase. Asst. Dem.	Prac. Oper. Dentistry. Section A. Wentworth. D. W. Dickinson. Asst. Dem. Pract. Mech. Dentistry. Section B. Cross, Dem. Chase. Asst. Dem.	Dent. Path., L. Brackett. Lect.-room B.	Prac. Oper. Dentistry. Section A. Wentworth. D. W. Dickinson. Asst. Dem. Pract. Mech. Dentistry. Section B. Cross, Dem. Chase. Asst. Dem.	Orthodontia Clinic. E. H. Smith. Baker. Chute.
11 to 1				Prac. Oper. Dentistry. Section B. Naylor. Wentworth. D. W. Dickinson. Asst. Dem. Pract. Mech. Dentistry. Section A. Cross, Dem. Chase. Asst. Dem.		Prac. Mech. Dentistry. Cross, Dem. Chute.
2	Bacteriology. Lectures. Daily, except Saturdays. Room A. Medical School Building.					
3 to 5	Bacteriology. Laboratory. Daily, except Saturdays. Section I, Room B. Section II, Room H. Medical School Building.					

<sup>1</sup> Mechanical treatment of Fractured Jaws, Cleft Palate, and other oral deformities, beginning October 23.



**TABULAR VIEW**  
**1902-03 — November**

**SECOND YEAR — First Half-Year**

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Crown and Bridge Work and Metallurgy. Cooke. Clin. Lect. or Dem. Lect.-room B.	Mat. Medica and Thera., L. Briggs. Lect.-room B.	Op. Dent., L. Potter. Lect.-room B.	Mechan. Dentistry, L. <sup>1</sup> Cross. Lect.-room B.	Op. Dent., or Oral Surgery. Fillebrown. Lect.-room B.	Mechan. Dentistry or Orthodontia. L. E.H. Smith. Lect.-rm. B.
10.	Pract. Oper. Dentistry. Section B. Elliott. D. W. Dickinson. Asst. Dem. Pract. Mech. Dentistry. Section A. Cross, Dem. Chase. Asst. Dem.	Pract. Oper. Dentistry. Section A. Naylor. Elliott. D. W. Dickinson. Asst. Dem. Pract. Mech. Dentistry. Section B. Cross, Dem. Chase. Asst. Dem.	Pract. Oper. Dentistry. Section B. Wentworth. D. W. Dickinson. Asst. Dem. Pract. Mech. Dentistry. Section A. Cross, Dem. Chase. Asst. Dem.	Dent.Path., L. Brackett. Lect.-room B.	Pract. Oper. Dentistry. Section B. Wentworth. D. W. Dickinson. Asst. Dem. Pract. Mech. Dentistry. Section A. Cross, Dem. Chase. Asst. Dem.	Orthodontia Clinic. E.H. Smith. Baker. Chute.
11 to 1				Pract. Oper. Dentistry. Section A. Naylor. Wentworth. D. W. Dickinson. Asst. Dem. Pract. Mech. Dentistry. Section B. Cross, Dem. Chase. Asst. Dem.		Pract. Mech. Dentistry. Cross, Dem. Chute.
2	Bacteriology. Lectures. Daily, except Saturdays. Room A. Harvard Medical School.					
3 to 5	Bacteriology. Laboratory. Daily, except Saturdays. Section I, Room B. Section II, Room H. Harvard Medical School.					

<sup>1</sup> Mechanical treatment of Fractured Jaws, Cleft Palate, and other oral deformities.

**TABULAR VIEW**  
**1902-03 — December and January**

**SECOND YEAR — First Half-Year**

DENTAL SCHOOL, NORTH GROVE ST.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Crown and Bridge Work and Metallurgy. Cooke. Clin. Lect. or Dem. Lect.-room B.	Mat. Medica and Thera., L. Briggs. Lect.-room B.	Op. Dent., L. Potter. Lect.-room B.	Pract. Mech. Dentistry. Cross. Dem.	L. Op. Dent., or Oral Surgery. Fillebrown. Lect.-room B.	Mechan. Dentistry or Orthodontia. L. E.H. Smith. Lect.-rm. B.
10	Pract. Oper. Dentistry. Elliott.	Pract. Oper. Dentistry. Elliott. Naylor.	Pract. Oper. Dentistry. Wentworth.	Dent.Path., L. Brackett. Lect.-room B.	Pract. Oper. Dentistry. Wentworth.	Orthodontia Clinic. E.H. Smith. Baker. Chute.
11				Pract. Oper. Dentistry. Wentworth. Naylor. D. W. Dickinson. Asst. Dem.		Prac. Mech. Dentistry. Cross. Dem. Chute.
to						
1	D. W. Dickinson. Asst. Dem.	D. W. Dickinson. Asst. Dem.	D. W. Dickinson. Asst. Dem.		D. W. Dickinson. Asst. Dem.	
2	Pract. Mech. Dentistry. Cross. Dem. Chase. Asst. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	Pract. Mech. Dentistry. Cross. Dem. Chase. Asst. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	Pract. Mech. Dentistry. Cross. Dem. Chase. Asst. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	Pract. Mech. Dentistry. Cross. Dem. Chase. Asst. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	Pract. Mech. Dentistry. Cross. Dem. Chase. Asst. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	
4	Orthodontia. Baker.	Recitation. Mat. Medica. Rodgers.		Orthodontia. Baker.	Recitation. Mat. Medica. Rodgers.	
4½						

# TABULAR VIEW

## 1902-03

### SECOND YEAR — Second Half-Year

DENTAL SCHOOL, NORTH GROVE ST.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Crown and Bridge Work and Metallurgy. Cooke. Clin. Lect. or Dem. Lect.-room B.	Mat. Medica and Thera., L. Briggs. Lect.-room B.	Op. Dent., L. Potter. Lect.-room B.	Pract. Mech. Dentistry. Cross. Dem.	L. Op. Dent. or Oral Surgery. Fillebrown. Lect.-room B.	Mech. Dentistry or Orthodontia. L. E.H. Smith. Lect.-rm. B.
10	Pract. Oper. Dentistry. Elliott.	Pract. Oper. Dentistry. Elliott. Naylor.	Pract. Oper. Dentistry. Elliott.	Dent.Path., L. Brackett. Lect.-room B.	Prac. Oper. Dentistry. Wentworth. Naylor.	Orthodontia Clinic. E.H. Smith. Baker. Chute.
11	D. W. Dick-inson. Asst. Dem.	D. W. Dick-inson. Asst. Dem.	D. W. Dick-inson. Asst. Dem.	Pract. Oper. Dentistry. Wentworth. Naylor. D. W. Dick-inson. Asst. Dem.	D. W. Dick-inson. Asst. Dem.	Prac. Mech. Dentistry. Cross. Dem. Chute.
2	Pract Mech. Dentistry. Cross. Dem. Chase. Asst. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	Pract. Mech. Dentistry. Cross. Dem. Chase. Asst. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	Pract. Mech. Dentistry. Cross. Dem. Chase. Asst. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	Pract. Mech. Dentistry. Cross. Dem. Chase. Asst. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	Pract. Mech. Dentistry. Cross. Dem. Chase. Asst. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	
4	Orthodontia. Baker.	Recitation. Mat. Medica. Rodgers, till Feb. 10.		Orthodontia. Baker.	Recitation. Mat. Medica. Rodgers.	
4½						

# TABULAR VIEW—1902-03

## THIRD YEAR

DENTAL SCHOOL, NORTH GROVE ST.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Crown and Bridge Work and Metallurgy. Clin. Lect. or Dem. Cooke. Lect.-room B.	<sup>1</sup> Surg. Path. Monks. com. Sept. 30. Lect.-rm. A. Op. Dent., L. or <sup>2</sup> Dental Jurisprudence, com. Jan. 6. Clapp and Starratt. <sup>3</sup> Mechanical Dent. Clin. Lect. Private Lab. J. D. Dickinson. com. Mar. 31.	Mechan. Dentistry L. or Dem. <sup>4</sup> Stoddard. <sup>5</sup> Op. Dent. Clin. Lect. Werner.	Mechan. Dentistry L. Baker. <sup>6</sup> Cross. Lect.-room B. Neurology, L. E. W. Taylor. Lect.-room A. 4 lectures com. Jan. 29.	L. Op. Dent. or Oral Surgery. Fillebrown.	Mechan. Dentistry or Orthodontia. L. E. H. Smith. Lect.-rm. B.
10	Prac. Mechan. Dentistry. Lab. Eldred.	Prac. Mechan. Dentistry. Lab. Burnham.	Prac. Mechan. Dentistry. Lab. Parsons.	Prac. Mechan. Dentistry. Lab. Hayden.	Prac. Mechan. Dentistry. Lab. J. W. Dickinson.	Orthodontia Clinic. E. H. Smith. Baker. Chute.
to						Prac. Mech. Dentistry.
1	Cross. Dem. Grant.	Cross. Dem. Chute.	Cross. Dem. Chute.	Cross. Dem. Chute.	Cross. Dem. Chute.	Cross. Dem. Chute.
2	Pract. Op. Dentistry. Blaisdell. Perkins.  McMeekin. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	Pract. Op. Dentistry. Taft. Gray.  McMeekin. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	Pract. Op. Dentistry. Eddy. Paul.  McMeekin. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	Pract. Op. Dentistry. Bradley. Holmes. <sup>7</sup> Surgery, L. Warren.  McMeekin. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	Pract. Op. Dentistry. Harding. Farrington.  McMeekin. Dem.  Extracting and Anaesthesia. Hart or Squarebrigs.	
4	Orthodontia. Baker.			Orthodontia. Baker.		

<sup>1</sup> Followed by Clinics, Boston City Hospital.

<sup>2</sup> Operative Dental Lectures, followed by demonstrations to the class in sections.

<sup>3</sup> In sections. 164 Newbury St.

<sup>4</sup> Followed by demonstrations in continuous Gum and Inlay Work in Mech. Lab.

<sup>5</sup> Commencing Nov. 5, followed by Clinical Demonstrations to the class in sections.

<sup>6</sup> Mechanical treatment of Fractured Jaws, Cleft Palate, and other oral deformities, beginning Oct. 23.

<sup>7</sup> Medical School to be announced.



A bond for *three hundred dollars*, executed by two sufficient bondsmen, one of whom must be a citizen of the United States, or by a surety company duly qualified to do business in Massachusetts, is required of students *who do not pay in advance*. A copy of such bond may be obtained by application to the Bursar of the University. The bond of the "American Surety Company," if made in a form satisfactory to the Bursar of the University, will also be accepted. To students depositing these bonds, term-bills will be presented February 1 to be paid on or before February 21; and also one week or more before Commencement, to be paid on or before the beginning of the next academic year. Such students will be held responsible for the payment of fees until they shall have notified the Dean of their intention to withdraw from the School, and have received their bond from the Bursar.\* *No degree can be conferred till all dues to the School are discharged.*

No officer or student of the University is accepted as a bondsman.

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction, — this remission to date from the reception by the Dean of a written notice of the student's withdrawal from the School.

The student's expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. A list of boarding places at varying prices can be obtained at the rooms of the Young Men's Christian Association, corner of Berkeley and Boylston Streets, and the rooms of the Young Men's Christian Union, No. 48 Boylston Street.

Students, on joining the School, and at the beginning of each school year, must enter their names with the Dean of the School. They are expected to register on the first day of the academic year, *the Thursday following the last Wednesday in September.*

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For further information address Dr. EUGENE H. SMITH, *Dean*, No. 283 Dartmouth St., Boston, Mass.

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DEAN'S OFFICE: NO. 283 DARTMOUTH STREET, BOSTON.

OFFICE HOURS OF THE DEAN: 9 A.M. TO 4 P.M.

\* The Bursar's office is in Dane Hall, Harvard Square, Cambridge. Hours 9-1.

LIST OF GRADUATES

OF

THE DENTAL SCHOOL OF HARVARD UNIVERSITY.

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1869.

Thomas Fillebrown, M.D. ( <i>Medical School of Maine</i> ),	Boston.
Robert Tanner Freeman,	*1873.
Thomas Haley,	*1892.
Edward Page, M.D. ( <i>Harvard</i> ),	Roxbury.
Samuel Julius Shaw,	Boston.
Joseph Jenkins Vincent,	Brockton.

1870.

John Thomas Codman,	Boston.
William Francis Davis,	Schenectady, N. Y.
George Franklin Grant,	Boston.
Samuel Franklin Ham,	Portsmouth, N. H.
Daniel Grout Harrington,	*1899.
Thomas Wilson Hogue,	Bournemouth, England.
Timothy Otis Loveland,	Boston.
William Henry Noyes,	*1895.
George Luther Parmele, M.D. ( <i>L. I. College Hospital</i> ),	Hartford, Conn.
William Henry Thornton,	*1897.
Frank Edward Ward,	*1894.
Charles Wilson,	Boston.

1871.

Charles Monroe Bailey,	Minneapolis, Minn.
George Hayward Baker,	Woonsocket, R. I.
Charles Edwin Hussey,	Biddeford, Me.
Albert Benton Jewell,	Newton.
Philip Benjamin Laskey,	Marblehead.
William Pitt Morgan,	Saginaw, W. S., Mich.

\* Deceased.

## 1872.

George Henry Ames,	Providence, R. I.
Sidney Chapin Bancroft,	Leavenworth, Kan.
Charles Samuel Bartlett,	Boston.
James Dias Bell,	London, England.
Edwin Perley Bradbury,	Montecito, Cal.
James Adkins Clark, M.D. ( <i>Dartmouth</i> ),	*1875.
James William Curtis,	Brunswick, Me.
George William Geist,	*1900.
John Warner Keyes,	Fitchburg.
George Edward Langdon Noyes,	Newburyport.
Frederic Miller Robinson,	Boston.
Samuel Saiza Silva,	Southbridge.
Benjamin Henry Torrens,	Frederickton, N. B.
Winslow Lewis Tucker, A.B., A.M. ( <i>Harvard</i> ),	Boston.
Cecil Porter Wilson,	Boston.

## 1873.

Charles Albert Brackett,	Newport, R. I.
Edward Augustus Dimmick,	Barbados, W. I.
George Henry Knowles,	Central Falls, R. I.
William Herbert Rollins, M.D. ( <i>Harvard</i> ),	Boston.
Charles Herman Wolff,	Worms am Rhein, Germany.

## 1874.

Willis Porter Battles,	*1899.
Edward Dwight Carr,	Kansas City, Mo.
Edward Eastman Frost,	Worcester.
George Leonard Mason,	*1895.
Horatio Cook Meriam,	Salem.
Frederic Augustus Merrill,	Boston.
Eugene Hanes Smith,	Boston.
Franklin Baker Stewart,	*1877.

## 1875.

Forest Greenwood Eddy,	Providence, R. I.
John Willard Hazelton,	Peabody.
Joseph Traverse Morong,	*1880.
Wilbur Bates Parker,	Boston.
Eben Francis Whitman,	*1902.

## 1876.

Thomas Bradley,	New York, N. Y.
Oscar Berlin Brann,	Washington, D. C.
George Peters Caldwell, M.D. ( <i>Harvard</i> ),	
George Cunningham, B.L., B.Sc. ( <i>Univ. of Paris</i> ),	
B.A., M.A. CANTAB., L.D.S. ( <i>Eng.</i> ),	Cambridge, England.
Edgar Morton Jewett,	Portsmouth, N. H.
George Otis Lawrence,	*1899.
Jesse Robbins,	Salem.
Charles Claude Rogers, L.D.S. ( <i>Eng.</i> ), M.R.C.S. ( <i>Eng.</i> ),	London, England.
Ezra Fletcher Taft, A.B. ( <i>Amherst</i> ),	Cambridge.
Julius George Wilhelm Werner,	Boston.

## 1877.

Allston Gray Bouvé,	Boston.
Henry Francis Dunkel,	Gunnison, Colo.
Edward Bigelow Hitchcock, M.D. ( <i>Dartmouth</i> ),	*1900.
Washburn Edward Page,	Boston.
Frank Perrin,	Boston.
Lucius Tracy Sheffield,	*1901.
Richard Theodore Stack, M.B. ( <i>Dublin Univ.</i> ), A.B.,	
M.D., L.R.C.S. ( <i>Edin.</i> ), C.H.M. ( <i>Dublin Univ.</i> ),	
L.M., F.R.C.S.I., L.D.S., R.C.S. ( <i>Eng.</i> ),	Dublin, Ireland.
Frank Herbert Williams,	Boston.

## 1878.

Edward Cornelius Briggs, M.D. ( <i>Harvard</i> ),	Boston.
Joseph Mason Bright,	Bangor, Me.
Harry Fairfield Hamilton, B.S. ( <i>Maine State Coll.</i> ),	Boston.
Manning Kennard Rand,	Boston.
Daniel Frank Whitten,	*1891.
Herbert Chauncey Woodward,	Paris, France.

## 1879.

Frederic Eugene Banfield,	Boston.
Walter Bryant Currier,	Maynard, Mass.
Thomas Clarence Gillingham,	Roxbury.
Edward Samuel Niles,	Boston.
John William Smith,	*1889.

## 1880.

Frederick Eugene Ayer,	Boston.
Albert James Colgan,	Boston.
Arthur Ernestine Lewis,	Plymouth.
John Scott Mason,	Saco, Me.
Virgil Clarence Pond, B.P. ( <i>Brown Univ.</i> ),	Boston.



## 1881.

William Parker Cooke,	Boston.
George Alfred Dennett,	Boston.
James Alfred Reilly,	Boston.
Edmond Rosenthal,	Brussels, Belgium.
Otis Franklin Smith,	Cambridge.

## 1882.

Dwight Moses Clapp,	Boston.
George Eubank,	Birmingham, Ala.
Edward Earl Hopkins,	Boston.

## 1883.

Elliot Bowdoin Bacheller,	Lowell.
Edwin Carter Blaisdell,	Portsmouth, N. H.
Frederic William Hill,	Oxford, England.
Edward Albert Lowe,	*1899.
Samuel Sterrett Macfarlane,	Frankfurt am Main, Germany.
Myron William Smith,	*1886.
Joseph Ellsworth Waitt,	Boston.
George Arthur Williams,	Liverpool, England.

## 1884.

Charles Lincoln Abbott,	Kansas City, Mo.
Frederic William Bevington,	Lawrence.
Henry Parsons Cooke,	Worcester.
Charles Percy Curtis,	
Arthur Crowell Gerry,	Lowell.
George Henry Gerry,	Brooklyn, N. Y.
Charles Franklin MacDonald,	Boston.
Edward Albert Stanley,	New Bedford.
Jere Edmund Stanton, M.D. ( <i>Bellevue</i> ),	Boston.
Alfred Horace Tester, L.D.S., R.C.S. ( <i>Eng.</i> ),	Tunbridge Wells, England.

## 1885.

Charles Henry Abbot,	Berlin, Germany.
Edward Merrill Currier, M.D. ( <i>Heidelberg</i> ),	
M.D. ( <i>Boston Univ.</i> ),	Boston.
Charles Eugene Estabrook,	Everett.
Thomas James Giblin,	So. Boston.
Henry Webster Gillett,	Newport, R. I.
Walter Harrison, L.D.S., R.C.S. ( <i>Eng.</i> ),	Brighton, England.
William Henry Potter, A.B. ( <i>Harvard</i> ),	Boston.
James Shepherd,	Boston.

## 1886.

Lyman Fisher Bigelow,	Boston.
Waldo Elias Boardman,	Boston.
William Thomas Borton,	St. Petersburg, Russia.
Frederick Bradley,	Newport, R. I.
Henry Michael Clifford,	Charlestown.
Isidor Fürst,	Hamburg, Germany.
Leonard Nutter Howe,	Boston.
Frederic Milton Mayo,	Boston.
Wilhelm Leopold Olander,	*1896.
Charles Hutchins Taft, A.B. ( <i>Harvard</i> ),	Boston.
Henry Lauriston Upham,	Boston.

## 1887.

Peter Crank, L.D.S., R.C.S. ( <i>Eng.</i> ),	Adelaide, So. Australia.
Carroll Ketcham Huntley,	Providence, R. I.
Leslie Maxwell, L.D.S., R.C.S.I.,	Tunbridge Wells, England.
Edwin Leslie Shattuck,	London, England.
Frank Ellsworth Sprague,	Nashua, N. H.
Henry James Stark,	*1889.
Edgar Fremont Stevens,	*1902.
Arthur Henry Stoddard,	Boston.
Charles Henry Veo,	Boston.
John Daniel Wilson,	Boston.
Harry Eugene Windsor,	Providence, R. I.
Thomas Weston Wood, A.B., A.M. ( <i>Brown Univ.</i> ),	Boston.
Harvey Warner Woodberry,	
Charles Frederick Wright, L.D.S., R.C.S. ( <i>Eng.</i> ),	London, England.

## 1888.

George Pierce Geist,	Frankfurt am Main, Germany.
Frederick Payne Graves,	Saco, Me.
Ellis Proctor Holmes,	Boston.
Henry Allen Kelley,	Portland, Me.
Thomas George Read, L.D.S., R.C.S. ( <i>Eng.</i> ),	London, England.
Frederick Arnold Stevenson, L.D.S. ( <i>Prov. Quebec</i> ),	
D.D.S. ( <i>Bishops College, Prov. of Quebec</i> ),	Montreal, Canada.
Charles Bryant Titcomb,	Salt Lake City, Utah.

## 1889.

Fred. Anthony Arnold,	Newport, R. I.
Henry Jeffkins Borton,	St. Petersburg, Russia.
Charles Poor Briggs, A.B., M.D. ( <i>Harvard</i> ),	Boston.
William Frederick Gay, M.D. ( <i>Tufts Coll.</i> ),	Boston.
Paul Grünewald,	Frankfurt am Main, Germany.
Frank Irving Hammond,	Providence, R. I.
Frederick Sylvanus Hopkins,	Boston.
Daniel Albion Jones, B.A., M.D. ( <i>Yale</i> ),	New Haven, Conn.
William Russell Jones,	Wakefield.
William Lombardino,	Berlin, Germany.
Patrick William Moriarty,	Boston.
William Curren O'Leary,	Roxbury.
Arthur Henry Osgood, A.B. ( <i>Harvard</i> ),	Boston.
Caleb Heath Shepard,	*1892.
Frederic Ervin Twitchell,	Willmar, Minn.
Eugene Jakob Wetzel,	Mülhausen, Alsace, Germany.
James Robert White,	No. Adams.

## 1890.

Sidney Roland Bartlett, S.B. ( <i>Mass. Inst. of Tech.</i> ),	Colorado Springs, Colo.
Harry Oliver Bixby,	No. Cambridge.
Benjamin Howard Codman,	Boston.
Edwin Hartley Dixon,	New York, N. Y.
Arthur Warren Eldred,	Worcester.
Charles Manning Keep, M.D. ( <i>Harvard</i> ),	Boston.
Charles Elmer Luce,	Stuttgart, Germany.
Kotai Masuda,	Yokohama, Japan.
Arthur Judson Oldham,	Boston.
Hermann Paal,	Dresden, Germany.
Charles Ernest Perkins,	Brockton.
Oscar Pulvermacher,	Berlin, Germany
Edward Rolfe,	Lexington.
Elbridge Abbott Shorey,	Dover, N. H.
Frank Turner Taylor,	South Boston.

## 1891.

Paul Henri Jules Boitel,	Vevey, Switzerland.
Georges Antoine Brouillet,	Boston.
Alexander Humboldt Fisher,	Roxbury.
Adin Albert Goldsmith, D.D.S. ( <i>Univ. of Penn.</i> ),	London, England.
Amos Irving Hadley,	Boston.

George Meads Holden,	Hackettstown, N. J.
Shimpei Nobutsune Isawa,	Tokio, Japan.
George Martin, D.D.S. ( <i>Univ. of California</i> ),	Berlin, Germany.
Clarence Moore Noble,	*1897.
Hugh Owen,	Auckland, New Zealand.
Joseph Totten Paul,	Boston.
George Barnum Perry,	Chicago, Ill.
William Fuller Sharp, D.D.S. ( <i>Univ. of California</i> ),	San Francisco, Cal.
Fred Homer Woodcock,	*1895.

## 1892.

Edward Stanley Bryant,	Brockton.
Allen Stanley Burnham,	Gloucester.
Charles Edward Bugbee Chase,	So. Framingham.
Willard Eben Curtice,	Roxbury.
Kirk Addison Davenport, D.D.S. ( <i>Univ. of Penn.</i> ),	London, England.
Ernest Frederick Gabell,	Birmingham, England.
Theodore Hallett,	*1898.
Herbert Frederic Hill, L.D.S., R.C.S.I.	London, England.
Albert Edward Hulme,	Andover.
Richard Carl Moritz,	London, England.
Harry Snow Parsons, M.D. ( <i>Bowdoin</i> ),	Boston.
Henry Robinson Peach,	Salem.
Henry Edward Rose, L.D.S., R.C.S.I.	Birmingham, England.
Nathan Prindle Wyllie,	*1900.

## 1893.

Charles Oscar Cummings, A.B. ( <i>Dartmouth</i> ),	*1894.
Frank Roberts Dickerman,	Taunton.
George William Field, Jr., L.D.S., R.C.S.I.	London, England.
George Rufus Gray, D.D.S. ( <i>Univ. of Penn.</i> ),	Worcester.
Joseph Geiger Grove, Jr.	Dahlanega, Ga.
Max Hanau,	Frankfurt am Main, Germany.
Arthur John Lamere,	Fitchburg.
Richard Pearson, M.R.C.S. ( <i>Eng.</i> ), L.R.C.P. ( <i>London</i> ),	
M.B., B.S. ( <i>Durham Univ.</i> ), M.D. ( <i>Durham Univ.</i> ),	London, England.
Edward Melville Quinby, M.R.C.S., L.R.C.P. ( <i>Eng.</i> ),	Liverpool, England.
Charles Hudson Quirk, M.D. ( <i>Harvard</i> ),	Buenos Ayres, Argentine Rep.
Frederick King Richardson,	Bridgeport, Conn.
William Bertram Sansom, L.D.S., R.C.S. ( <i>Eng.</i> ),	London, England.
John Joseph Smith,	*1894.
Frank Merrett Wilkinson,	Perth, West Australia.



## 1894.

Eugene Everett Arnold,	Pawtucket, R. I.
Joseph Bergrin Belliveau,	Boston.
Joseph Boylston,	Portsmouth, N. H.
Thomas Bernard Hayden,	Boston.
Jay Reuben Holton,	St. Louis, Mo.
Gustave Joseph Inderbitzen,	Berne, Switzerland.
Arthur Jackson,	Boston.
Frederick William Percival,	Peterborough, England.
Thomas Edward Quinn,	Boston.
Fred Gibson Robbins, M.D. ( <i>Harvard</i> ),	Boston.
Arthur Galusha Smith,	Peoria, Ill.
George Lund Taft, PH.B., A.B. ( <i>Boston Univ.</i> ),	Cambridge.
Louis Napoleon Veo,	Boston.
William Joseph Walton, M.D. ( <i>Harvard</i> ),	Dorchester.

## 1895.

Ernst Sixten Arvedson, L.D.S. ( <i>Sweden</i> ),	Stockholm, Sweden.
Edward Doane Barrows,	Berlin, Germany.
Robert Lander Bartlett, M.D. ( <i>Tufts Coll.</i> ),	New York, N. Y.
Clarence Augustus Carr, A.B., A.M. ( <i>Brown Univ.</i> ),	Newport, R. I.
Walter Strout Coleman,	Portland, Me.
Dwight Ward Dickinson, B.S. ( <i>Boston Univ.</i> ),	Boston.
Percy Edgelow, M.R.C.S. ( <i>Eng.</i> ), L.R.C.P. ( <i>Ed.</i> ),	London, England.
James Austin Furfey,	Boston.
Marquis D. Littig, D.D.S. ( <i>Univ. of Penn.</i> ), M.D. ( <i>Tufts</i> ),	Boston.
Frederick Everett Meader,	Boston.
Richard Dyer Milliken,	Saco, Me.
Robert Tucker Moffatt,	Boston.
Henry Clinton O'Brien,	Boston.
Patrick Henry O'Connor,	Portland, Oregon.
Francis Wheeler Rice,	*1897.
Leopold Adolph Edward Scheuermann,	Berlin, Germany.
Arthur Hale Woodcock,	Boston.

## 1896.

Francis Homes Barnard, Jr.	Boston.
Edgar Casper Bienemann,	Croydon, England.
Asher Harriman St. Clair Chase,	Everett.
Ernest Howard Chute,	Boston.
Charles Winfield Crane,	Lynn.

Harold DeWitt Cross,	Nashua, N. H.
John Walter Emery,	West Medford.
Edwin Linwood Farrington,	Lowell.
Adelbert Fernald,	Boston.
Guy Webster Gilbert,	Lawrence.
Harry Sargent Gilman,	Boston.
Harry West Haley,	Boston.
Harvey Winchester Hardy,	Boston.
Harry Morrill Haynes,	Boston.
Robert John McMeekin,	Boston.
James Francis Martin,	Springfield.
Edward Wakefield Matthews,	Yarmouth.
Charles Everett Monroe,	Wollaston.
Thomas Kennedy Ross,	Fitchburg.
Johann Philipp Alexander Stadelmann,	Dresden, Germany.
Walter Irving Sweet,	Providence, R. I.
Charles Frederick York, Jr.	Chelsea.

## 1897.

Frederick Wilde Allen,	Boston.
Frank Pliny Barnard,	Worcester.
Roy Keney Belden,	San Francisco, Cal.
Harry Ernest Belyea,	St. John, N. B.
Charles William Berry, B.S. ( <i>Dartmouth Coll.</i> ),	W. Somerville.
Ralph Vincent Blake, PH.G. ( <i>Mass. Coll. of Pharmacy</i> ),	Philadelphia, Pa.
Harold Edgeworth Davis, M.D. ( <i>Cooper Med. Coll.</i> ),	San Francisco, Cal.
Robert Irving Davis,	Chelsea.
Walter Sheldon Davis,	Worcester.
John Dana Dickinson,	Boston.
Harold Watson Estey,	Boston.
Walter Joseph Faunce,	Boston.
George Lincoln Forrest,	Wakefield.
Leo Green, A.B. ( <i>Coll. of City of New York</i> ),	New York, N. Y.
George True Greenwood,	Fitchburg.
Francis Herbert Harding,	Winchester.
Edward Everett Henry,	Wellesley.
Arland Martin Kenney,	Roxbury.
Charles Ansel Lakin,	Boston.
William Cable Lunan,	Southbridge.
Raimond Edgar McDonnough,	Bath, Me.
Thomas Richard McMahon,	Boston.
Joseph Thomas Mooney,	Boston.
Charles Erwin Parkhurst, A.B. ( <i>Boston Univ.</i> ),	Somerville.

Henry Carlton Spencer,	Newton.
Joseph Herman Stromier, D.D.S. ( <i>Univ. of Mich.</i> ),	
L.D.S. ( <i>Coll. of Physicians and Surgeons, Glas-</i>	
<i>gow, Scot.</i> ),	Glasgow, Scotland.
David Pickard Thomas,	Oudtshoorn, Cape Colony, Africa.
Clarence Bartlett Vaughan,	Boston.
Frank Hosea Veo,	Boston.
George Alfred Warren,	London, England.
Walter Harris White,	Boston.
Herbert Clarence Woodman,	Boston.

## 1898.

Harry Roscoe Allen,	Middletown, Conn.
Ernest Harold Christopher Bailey,	E. Melbourne, Australia.
Francis William Bailey,	Waterford, Ireland.
Lawrence Wills Baker,	Boston.
Charles Boardman Burnham,	Beverly.
John Alexander Counter,	Toledo, O.
Frank Crowther,	Perth Amboy, N. J.
Joseph Daley,	Boston.
Eliot Taylor Dickinson, B.S. ( <i>Boston Univ.</i> ),	Northampton.
Giles Dowling,	Boston.
Paul Hill Duckworth,	Boston.
Stewart Cheselton Fisher,	Denison, Tex.
Harry Linwood Grant, A.B. ( <i>Brown Univ.</i> ),	Providence, R. I.
Timothy Hanrahan,	Boston.
George Herbert Harding, L.D.S., R.C.S. ( <i>Eng.</i> ),	Llandudno, No. Wales, Eng.
Ernest Jewett Hart,	Boston.
J. Churchill Hindes,	Vergennes, Vt.
Horace Leonard Howe,	Boston.
Evans Almon Leonard,	Boston.
William Saul Louisson, D.D.S. ( <i>Univ. of Penn.</i> ),	San Francisco, Cal.
Frank Martin Lynde, A.B. ( <i>Tufts Coll.</i> ),	Barre, Vt.
Michael Francis McDermott, M.D., C.M. ( <i>Queens Univ.,</i>	
<i>Kingston</i> ),	Kingston, Can.
John Norman Macdonald, L.D.S.	Dunedin, N. Z.
Elmer Joseph Marston,	Boston.
Louis Frederic Mongeon,	Boston.
Charles Edward Murphy,	Salem.
William Morse Parker,	West Medford.
James Avarid Richan,	Rockland, Me.
Frederick Augustus Leopold Schuckmann,	Hameln, Germany.

Frank Bowker Siears,	Malden.
Murdock Campbell Smith, M.D. 1888, D.D.S. 1887 ( <i>Howard Univ.</i> ),	Lynn.
William Daniel Squarebrigs,	Boston.
Wilfred Harlow Starratt, A.B. ( <i>Acadia Univ.</i> ),	Boston.
John Talbot Timlin,	Melrose.
Albert Everett Tuck,	Gloucester.
Ernest Blake Williams,	*1899.
Oliver Perry Wolff,	Canton.
1899.	
Percy Lewis Barker,	*1900.
Harold Nickerson Boyle,	Reading.
Burt Myron Bristol,	Groton, Mass.
Ernest Earl Carle,	Malden.
John Sibley Coxeter,	Newtonville.
James Bernard Crofwell,	Boston.
Joseph Walter Davis,	Milford.
Franklin Everett Dawes,	Neponset.
John Matthew Donovan,	Dorchester.
Guy Jerome Elwell,	Gloucester.
Thomas Dorsey Esgate,	No. Attleboro.
William Edward Fallon,	Boston.
George Emil Julius Federlin,	Boston.
Fritz Heinrich Fincke, M.D. ( <i>Univ. of Md.</i> ),	*1899.
George Osbourne Gaymond,	Dedham.
Everett Kendall Hallet,	Dorchester.
Oscar John Heinrich,	Dresden, Germany.
Elbridge Decosmo King,	Boston.
Karl Sumner Kyes,	Peterboro, N. H.
Arthur Allen Libby,	Boston.
Thomas Francis McHale,	Providence, R. I.
Alfred Cooper Nathan, D.D.S. ( <i>Phila. Dent. Coll.</i> ),	N. Sydney, Australia.
Norman Beverly Nesbett,	New Bedford.
Charles Warren Patch,	Denver, Colo.
James Henry Pemberton,	Fall River.
William Eben Phillips,	Boston.
James Edward Power,	Providence, R. I.
Herbert Arthur Reed,	Boston.
Oscar Per Herman Reuterswärd,	Boston.
George Danforth Richmond,	Nantucket.
Charles Bradford Robinson,	London, Eng.
Willard Mariner Rowe,	Waltham.
Carl Axel Robert Samsioe,	Stockholm, Sweden.



Edwin Silas Thompson,  
Evan Parker Wentworth,  
Edward Patrick White,

Vineyard Haven.  
Boston.  
Cambridge.

## 1900.

George Emerson Barrell,  
George Chandler Baldwin, *cum laude*,  
George Oliver Bartlett,  
Daniel Crawford Brown,  
Harry Sanford Burton, L.D.S., R.C.S. (*Eng.*),  
Stephen Frederick Carrier,  
Horace Amos Davis, PH.B. (*Tufts Coll.*),  
Frederick Wilbur Day,  
John Irving Esgate, *cum laude*,  
John Wesley Estabrooks, *cum laude*,  
Louis Dinsmore Holman Fuller,  
Clarence Marshall Glazier,  
Dennis Joseph Hurley,  
Charles Allen Jameson,  
Edwin Newell Kent,  
Joseph Lecomte, M.D. (*Brussels Univ., Belgium*),  
Carlton Butler Leighton,  
Albert Ira Mackintosh,  
Charles Winthrop McPherson,  
Dwight Clifford Martin,  
William Wilkinson Marvel, Jr.  
Leslie Herbert Naylor,  
Ralph Wheelwright Payne,  
Frank Derby Pierce,  
Samuel Lumn Doherty Randall,  
Joseph Eugene Rochette,  
Charles William Rodgers,  
John William Ryan,  
Henry Heims Simmons, *cum laude*,  
Frank Winthrop Snow,  
David Frederick Spinney,  
Nelson Gore Trueman,  
John Augustine Watts,

Somerville.  
Boston.  
Cambridge.  
Baltimore, Md.  
Oxford, England.  
Roxbury.  
Boston.  
Gardiner, Me.  
No. Attleboro.  
Boston.  
Westboro.  
Roxbury.  
Dedham.  
Boston.  
Brookline.  
Brussels, Belgium.  
Portland, Me.  
Andover.  
Medford.  
Boston.  
Fall River.  
Newton.  
Greenfield.  
W. Roxbury.  
Boston.  
Worcester.  
Dorchester.  
Cambridge.  
Florence, Italy.  
Providence, R. I.  
Brookline.  
Boston.  
Jamaica Plain.

## 1901.

Fennimore Shute Andrews,  
Roland Safford Barney,  
Leslie Barnes Boutwell,  
Fred Phillips Brown,

Quincy.  
Southboro.  
Boston  
Haverhill.

Patrick Henry Buckley,  
 Harry Howard Cushing,  
 James Willoughby Cutler,  
 Walter Alonzo Davis,  
 John Walker Dickinson,  
 John Patrick Donovan,  
 Wilson Case Dort,  
 Alfred Culmer Edwards, L.D.S. (*Eng.*),  
 Samuel Tuttle Elliott, *cum laude*,  
 Ellis Vinal Fanning.  
 John Joseph Gallahue,  
 Rufus Henry Gould,  
 Hugh Kerr Hatfield, M.D. (*Harvard Univ.*),  
 Charles Levi Joslin,  
 Henry Harold Luther,  
 Albert Leonard Midgley, *cum laude*,  
 Charles Gilman Pike,  
 Norman Greene Reoch, *cum laude*,  
 Arthur Verne Rogers,  
 Melville Forrest Rogers, *cum laude*,  
 Paul Haywood Shinn,  
 Harry Judson Smith,  
 Coleman Tousey, A.B. (*Tufts Coll.*), *cum laude*,  
 Emery William White,  
 Robert Whitehill,

Brockton.  
 Salem.  
 Providence, R. I.  
 Boston.  
 Boston.  
 Norwood.  
 Boston.  
 Pau, France.  
 Boston.  
 Brockton.  
 So. Boston.  
 Worcester.  
 Boston.  
 Somerville.  
 Newport, R. I.  
 Providence, R. I.  
 Boston.  
 Phenix, R. I.  
 Winchester.  
 Boston.  
 Boston.  
 Northampton.  
 Boston.  
 \*1902.  
 Cambridge.

## 1902.

Walter A. Bradford, *cum laude*,  
 Adelbert Melvin Bruce,  
 Frederick Matthew Cassidy,  
 William Chesley Clinch,  
 Charles Davis Cobb,  
 Burton Henry Cooper, *cum laude*,  
 Charles Henry Daly,  
 Albert William Day,  
 Arthur Trowbridge Freeman,  
 Charles Wesley Hale, *cum laude*,  
 Thomas Frederick Hammond,  
 Fred Burpee Hicks,  
 Morris Arthur Lazarus,  
 Erving Fiske Lowe,  
 Frank Randall McCullagh,  
 Edward James McGoldrick,

Saco, Me.  
 Natick.  
 Boston.  
 Boston.  
 Arlington.  
 Boston.  
 Boston.  
 Worcester.  
 Boston.  
 Springfield.  
 Natick.  
 Brookline.  
 Boston.  
 Fitchburg.  
 Roxbury.  
 Cambridge.

Henry Edmund McNally,	Quincy.
Walter Curtis Miner,	Boston.
Walter Grover Newell,	Boston.
James Joseph O'Brien, <i>cum laude</i> ,	Somerville.
Thomas Bartholomew Owens,	Boston.
Leo Augustine Rogers,	Somerville.
Walter James Scott,	Rutland, Vt.
Harry Benjamin Shuman, <i>cum laude</i> ,	Providence, R. I.
Luther Dimmick Shepard, Jr., A.B., M.D., ( <i>Harvard Univ.</i> ),	Boston.
William John Speers,	Newport, R. I.
Rudolph Sykora,	Boston.
Charles Thomas Warner, <i>cum laude</i> ,	Dorchester.
Henry Eugene Watkins,	Worcester.
Bryce Aughterson Wilson,	Providence, R. I.
George Fisher Wolfe,	Canton.
Herbert Harlan Yarrington,	Rutland, Vt.

## EXAMINATION PAPERS.

(*Annual Examinations, 1902.*)

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### First Year's Studies.

#### ANATOMY.

An oral, practical examination.

#### HISTOLOGY. — Professor C. S. MINOT.

[Each student is given four sections numbered to correspond with the questions below. He is expected to make simple drawings only, but sufficient to show that he has correctly identified the parts. Any student who draws tissues or structures, not shown in his preparation, will be considered to have failed in all his answers.]

1. Draw all the tissues in the preparation. Describe their staining. What is the organ?
2. Draw and describe the general distribution of the nerve fibres. How are the fibres stained? In what plane is the section made?
3. Draw the principal kinds of nuclei shown in the preparation and state to what kind of cell each belongs.
4. Draw the blood vessels of the organ so as to illustrate the histological differences between the various kinds of blood vessels shown in the preparation.

1. Human breast; Mallory stain. 2. Cerebellum; Weigert's copper haematoxyline.  
3. Spleen; alum haematoxyline. 4. Liver; alum haematoxyline and Orange G.

#### PRACTICAL EXAMINATION IN PHYSIOLOGY.

[Each student is required to make six of the nine experiments bearing his number, and to write an account of his observations on the blank furnished herewith. Where the results of the experiments are not expressed in a graphic record they must be demonstrated to the instructor.]

1. Show the action of the sympathetic on the heart. Demonstrate the spreading of impulses in the central nervous system. Record curves showing the influence of changes in the aortic pressure on the interval between the beginning of ventricular contraction and the opening of the semilunar valves (in the artificial scheme).
2. Demonstrate that the cardiac systole is a simple contraction. Show the influence of load on the work done by skeletal muscle. Show where the more complicated coördinated reflex acts have their centres.
3. Show evidence that the ventricular contraction wave may be transmitted by muscular tissue. Prove that the excitability of a nerve is altered in the neighborhood of the anode and the cathode during the passage of the galvanic current. Secure a record of the effect of duration of stimulus on smooth muscle.



4. Furnish experimental evidence for an explanation of the auriculo-ventricular interval. Prove that the galvanic current stimulates during the whole time of its passage through an irritable tissue. Demonstrate the influence of load on ventricular contraction.

5. Prove the existence of tonic contraction of muscle. Demonstrate the current of action in muscle and nerve. Give experimental evidence that the vagus connects with the nerve cells in the heart.

6. Demonstrate polar stimulation by the galvanic current. Show the vasomotor functions of the spinal cord. Demonstrate the inhibition of reflex action in the frog.

7. Show by diagram the method of determining the size of a retinal image. Demonstrate that the nervous impulse must pass to the central nervous system before it can produce a reflex action. Demonstrate the difference in the physiology of smooth and striated muscles.

8. Show the function of the anterior spinal nerve-roots. Record with the artificial scheme pulse curves of low arterial tension and high arterial tension, and discuss their method of production. Construct a diagram showing the formation of the image in myopia.

9. Show the effect of inhibition of the heart on arterial pressure in the frog. Demonstrate on muscle the different effect of sudden and of gradual increase in intensity of stimulus. Prove the discontinuous nature of tetanic contraction.

10. Determine the effect of stimulation of the vagus on the beat of the ventricle. Show that all contractions of heart muscle are maximal. Give experimental evidence that a nerve fibre may conduct impulses in both directions.

11. Prove that the extensibility of muscle is increased in tetanus. Demonstrate the limits of the refractory period and the existence of the compensatory pause. Prove that the demarcation current (current of injury) may act as a stimulus.

12. Show the influence of temperature on the form of the contraction wave of skeletal muscle. Produce evidence that irritability is separable from conductivity. Show that the control of movements is localized at different levels of the spinal chord.

13. Show that a constant stimulus may cause periodic contraction. Show the influence of fatigue on muscular contraction. Draw a construction showing the formation of the image in the indirect method of observing the retina.

14. Show the segmental arrangement of the reflex apparatus. Construct a diagram showing the formation of the image in hypermetropia. Show the influence of an increase in peripheral resistance on the blood pressure in the frog.

15. Prove the independent irritability of muscle. Show experimental proof of the law of contraction with weak, medium, and strong ascending currents. Make a record of minimal and maximal stimulation and show the effect of summation.

16. Compare an isometric contraction with an isotonic contraction. Obtain from the artificial scheme of the circulation a characteristic pulse curve of aortic regurgitation and explain its production. Demonstrate and discuss the apparent purpose in reflex action.

PHYSIOLOGY. — Professor W. T. PORTER.

(Answer any three questions, but not more than three. The answer to any one question must not exceed three hundred words. Mention, where possible, experimental evidence in support of your opinion. Matter not bearing directly on the question asked will count against the writer.)

1. Give an account of the innervation of the heart.
2. Describe the digestion of proteids.
3. Discuss the sensory functions of the skin.
4. Sketch the metabolism of carbohydrates.

CHEMISTRY. — Professor W. B. HILLS.

1. Complete the following equations :—  

$$\text{Zn} + 2 \text{HCl} =$$

$$2 \text{NaCl} + \text{H}_2\text{SO}_4 =$$

$$\text{Ca}(\text{OH})_2 + 2 \text{NH}_4\text{Cl} =$$
2. Define: valence; alkali; carbohydrate.
3. Give the properties of hydrogen peroxide, and the details of the method for its volumetric assay.
4. Preparation of nitrous oxide?
5. In squeezing mercury from a silver-tin amalgam, the mercury carries out more of one metal than of the other. Which is the one most affected, and about how much of it would the mercury contain?
6. State the effect of copper in a filling: (a) on the filling; (b) on the tooth.
7. Explain the action of sulphuric acid in the manufacture of ether.
8. Give method for testing the saliva for mercury.
9. Give the final qualitative tests for Ag; Sn; Cu.

**Second Year's Studies.**

BACTERIOLOGY. — Professor ERNST.

1. What are the advantages and disadvantages of "nutrient-gelatine" as a culture medium, and how is it prepared?
2. Describe the bacteria concerned in the production of Pneumonia.
3. What are the differences, from a bacteriological point of view, between a septicemia, a pyemia, and a toxemia.
4. What are the biological and morphological characteristics of *Staphylococcus Pyogenes Aureus*?

DENTAL PATHOLOGY. — Professor BRACKETT.

1. Diagnosis.
2. Toxines and antitoxines.
3. The effect of temperatures upon the vitality of micro-organisms.

4. The diagnosis of pathological conditions in the antrum.
5. Differentiation between alveolar abscess and syphilitic gumma about the jaws.
6. Calcification in the tooth pulp.
7. Pus.
8. The influence of general atrophy upon the tissues of the mouth.
9. The diagnosis of cancer.
10. Sources and effects of acid conditions in the mouth.
11. Circumstances favorable for the development and maintenance of good teeth in the individual.
12. Etiology of hypertrophies of gas and of pulp.

#### OPERATIVE DENTISTRY. — Asst. Professor POTTER.

1. Describe three groups of operating instruments, and draw three examples of each group.
2. State why it is necessary to cleanse and sterilize dental instruments, and describe the process.
3. Write the formula for a reliable amalgam alloy, and describe its method of manufacture and principal uses.
4. Fill a cavity with non-cohesive gold foil. Describe and draw the process.
5. Describe the removal of a pulp by the use of cocaine. In case you used a 20% solution of cocaine, in a syringe holding one-half a drachm, how much cocaine would the syringe contain? What is the maximum dose of cocaine used hypodermically?
6. How would you diagnose an alveolar abscess and how would you treat it?
7. How would you treat approximal cavities in the temporary teeth. Give the approximate times of the eruption of the temporary teeth.
8. Describe three electrical appliances which are useful in dental work.
9. Describe the use of arsenic in devitalizing pulps. How much  $\text{As}_2\text{O}_3$  can be taken medicinally?
10. Describe and draw three kinds of matrices.

#### MATERIA MEDICA AND THERAPEUTICS. — Professor BRIGGS.

1. Rubefacients, — definition. Describe two.
2. Ether.
3. For what purposes are diuretics used? Describe two.
4. What is the method of reducing the percentage of a solution? Give examples, using both apothecaries and metric systems of weights and measures.
5. Strychninae sulphas.
6. Name and describe two preparations of mercury.
7. How much cocaine hydrochlorate in a drachm syringe filled with a  $1\frac{1}{2}\%$  solution?

8. Describe fully one local anaesthetic.
9. How do antipyretics act, and what is their application in dental medicine?
10. Write prescription for ten powders, each to contain
 

Calomel . . . . .	.01
Bicarbonate of sodium . . . .	.13
Phenacetine . . . . .	.32

### **Third Year's Studies.**

#### **CROWN AND BRIDGE WORK AND METALLURGY.**

Asst. Professor COOKE.

1. Describe the methods used in making all metal seamless crowns, stating objections and merits of the systems.
2. How would you crown the root of a lower second bicuspid when the adjoining teeth have come together so you do not have space for a band?
3. Give the advantages and disadvantages of: (1) post crowns; (2) banded crowns.
4. Describe what you consider the best method of crowning any of the superior cuspids or incisors.
5. How would you supply a superior central incisor, the adjoining teeth being sound?
6. Mention some points to be observed in (1) soldering; (2) in preventing the cracking of porcelain teeth.
7. How would you treat a case when the lower teeth are all present and sound, and (1) the upper cuspids only remain, but they are sound and firm; (2) when the cuspids and second molars are present?
8. The lower incisors being absent, the cuspids tipping toward each other. How bridge such a case?
9. Cite a practical case of a crown or bridge and give your treatment.
10. When would you use amalgam, pure gold, platinum, gutta percha, cement, alloyed gold, in crown work, giving advantages of each.

#### **MECHANICAL DENTISTRY. — Professor SMITH.**

1. Etiology of cleft palate.
2. English tube teeth. How used?
3. What changes may be produced in shop teeth to effect a more natural appearance?
4. In the case of an excessive protrusion of the lower jaw, how would you arrange the occlusion of artificial teeth?
5. Philosophy of the vacuum chamber.
6. Speyer's adhesive plate. How used?
7. Condition indicating the use of spiral springs.
8. What coloring materials are used in making body, tooth enamel, and gum enamel?



9. Give two methods of overcoming the warping caused by contraction in baking continuous gum cases.

10. Who originated the method of making a metallic matrix for porcelain inlays, and what are the advantages and disadvantages of platinum and gold for this purpose?

## OPERATIVE DENTISTRY AND ORAL SURGERY.

Professor FILLEBROWN.

Describe particularly the conditions, course, and treatment in the following cases:—

1. Normal tooth pulp, nearly or quite exposed. Treatment to save.
2. Pulp exposed and irritated.
3. Pulp decomposed.
4. Alveolar abscess.
5. Alveolar necrosis.
6. Epulis.
7. Cysts.
8. Describe the administering of the anaesthetics Nitrous Oxide, Ether and Chloroform; the dangers of each and how to avoid them.
9. Give your opinion of combination fillings and your reasons for same.
10. How would you fill with a combination filling a large cavity in the disto-proximal surface of a superior cuspid?

## ORTHODONTIA.—Professor SMITH.

1. What is Haskell's deformity?
2. Explain two methods of correcting torsion.
3. Differentiate between prognathism and anterior-superior protrusion.
4. The use of intermaxillary elastics. Where indicated?
5. Conditions that indicate the use of the crib plate.
6. Describe the necessary anchorage for moving both superior cuspids posteriorly.
7. Describe the use of the expansion wire.
8. Under what conditions would you use the jacket plate with pegs.
9. Briefly describe the etiology of irregularities.
10. CASE.—Patient: woman, 20 years of age. Upper teeth regular. Lower teeth regular, with the exception of much crowding and overlapping of the lower incisors. Occlusion normal. Treatment.

## SURGICAL PATHOLOGY AND SURGERY.

Professor WARREN and Dr. MONKS.

1. Describe the healing of a wound (*a*) by first intention; (*b*) by second intention.
2. Compare caries and necrosis.

3. Give the treatment of acute inflammation of the soft parts.
4. Give some of the causes of gangrene.
5. Mention some of the varieties of ulcers.
6. Describe a case of simple erysipelas.
7. Describe the various forms of stomatitis. Treatment.
8. Enumerate and describe the various ulcerations that may occur on the tongue.
9. Describe the different forms of epulis. Give treatment.
10. Describe a chancre and an epidermoid carcinoma of the lower lip. Treatment.



## OFFICIAL REGISTER OF HARVARD UNIVERSITY

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Issued at Cambridge Station, Boston, Mass., twice a month from September to  
March (except November) inclusive, six times a month from  
April to August inclusive.

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These publications include :—

The Annual Reports of the President and of the Treasurer.

The Annual University Catalogue.

The Annual Catalogues of the College and the several Professional Schools of the University; the Announcements of the several Departments; etc., etc.















